IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: :
                               :
   Vladislav OLCHANSKI et al.   :   Group Art Unit: 2151
                               :
Appln. No.: 09/996,475   :
                               :   Examiner: Karen C. Tang
Filed: November 20, 2001   :
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For: PERFORMANCE OUTCOMES   :
    BENCHMARKING   :

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER 37 C.F.R. § 1.131

Sir:

   I, Stephen E. Zimberg, hereby declare that I am a co-applicant in the above-identified patent application and that I am also a co-inventor of the invention that is described and claimed in the above-identified patent application. I also hereby declare that prior to May 15, 2000, my co-inventors and I conceived of the invention that is described and claimed in the above-identified patent application as evidenced by the following:

   1. Prior to May 15, 2000, my co-inventors and I conceived of the invention in the United States. At the time of the invention, I owed a duty of assignment of the invention to Chironet, LLC (hereinafter "Chironet").

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2.   Shortly after my co-inventors and I conceived of the invention, my co-inventors and/or I prepared a description of the invention for purposes of defining system requirements and for guiding hardware/software development of a system embodying the invention. A date redacted copy of the description of the invention (i.e., our invention disclosure) is attached hereto as Exhibit A.

3.   A system embodying the invention as described in our invention disclosure was actively developed until completion of an initial version of the system.

4. Upon completion of the initial version of the system, details of the initial version of the system were provided by Chironet to outside patent attorneys for preparation of a provisional patent application encompassing the invention.

5.   On November 21, 2000, the above-identified provisional patent application was filed. A copy of the filing receipt for this provisional patent application is attached hereto as Exhibit B.
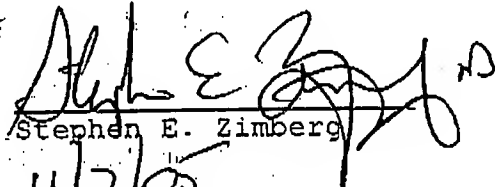
6. Between November 21, 2000, and November 20, 2001, my co-inventors and/or I had several discussions regarding our invention disclosure and the provisional patent application with the outside patent attorneys, and provided additional supporting materials to the outside patent attorneys, all intended to assist the outside patent attorneys in converting the

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provisional patent application into a utility patent application encompassing the invention.

7. On November 20, 2000, the above-identified utility patent application was filed. A copy of the filing receipt for the application is attached hereto as Exhibit C.

I further hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

DECLARANT: /Stephen E. Zimberg

Date: 11/7/00

EXHIBIT A

SOIX Report System
User's Manual

Table of Contents

The structure of report folders on the SOIX private web site

The structure of report folders on the SOIX private web site is the following:

```
[centers]
    |
    |----[center_1]--|
    |                |--[Quarter]-----|
    |                |                |---[Proc_1]----report_file_1.html
    |                |                |              |
    |                |                |              |--report_file_1.gif
    |                |                |              |--.................
    |                |                |              |--report_file_N.html
    |                |                |              |
    |                |                |              |--report_file_N.gif
    |                |                |
    |                |                |--(......]
    |                |                |--[Proc_k]
    |                |                |--[......]
    |                |                |--[Proc_Z]
    |                |                |
    |                |                |--MM-DD-YYYY
    |                |                |
    |                |                |--index.html
    |                |                |
    |                |                |--report_index_file_1.html
    |                |                |--..................
    |                |                |--report_index_file_N.html
    |                |                |
    |                |                |--combo_report_file_1.html
    |                |                |--..................
    |                |                |--combo_report_file_H.html
    |                |
    |                |--[Month]
    |                |
    |                |--[MonthCumul]
    |                |
    |                |--[OLD]-----------[Myyyy-mm]
    |                |                |
    |                |                |--[Myyyy-mmC]
    |                |                |
    |                |                |--[Qyyyy-qq]
    |                |
    |                |--[Download]
    |                |
    |                |--index.html
    |                |
    |                |--main-Old.hmtl
    |                |
    |                |--Month_dump.mdb
    |                |
    |                |--MonthCumul_dump.mdb
    |                |
    |                |--Quarter_dump.mdb
    |
    |----[........]
    |----[center_k]
    |----[........]
    |----[center_Y]
    |
    |----[group_1]----[center_1]
    |               |--[........]
    |               |--[center_k]
    |               |--[........]
    |               |--[center_P]
    |
    |----[........]
    |----[group_k]
    |----[........]
    |----[group_T]
```
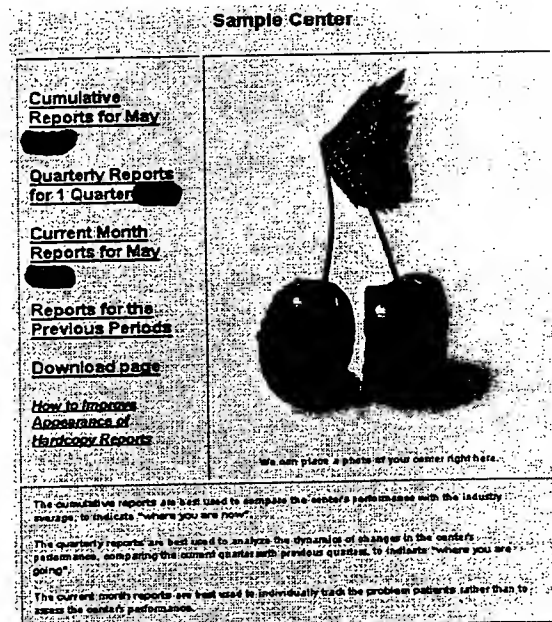

Fig. 2. Home page for Sample center.

Fig.1 The structure of report folders. (All names typed in italic font are used for the generic description. They don't correspond to any real names. Square brackets are used to distinguish folders and files)

The folder **[centers]** is located in the root directory of the SOIX private web server (current location of the root directory is "C:\SOIX\WebSites\SOIX\centers"). Folders **[center_1], ..., [center_k], ..., [center_Y]** are centers report directories. The name of a center's directory is a three letter USERCODE of the center (Example: **AAA,**

AAB, MFA). Each cente●s its own home page – [center_k]●ndex.html file. In Fig.2 you can see an example of the home page.

Each center's folder has involved file structure. Let's consider this structure in more details.

Folders [Month], [Quarter] and [MonthCumul] are used to store "Current Month Report", "Quarterly Reports" and "Cumulative Reports", respectively.

[OLD] folder is used to store "Reports for the Previous Periods". Each folder inside [OLD] represents reports for a certain period. Folders for quarterly reports have [Qyyyy-qq] names, where "yyyy" is a year in four digit format and "qq" is a quarter number with a leading zero (Example: "Q●03" – reports for third quarter of ●). Files for previous monthly reports are located in [Myyyy-mm] folders, and cumulative monthly reports are saved in [Myyyy-mmC] ones, where "yyyy" is a year and "mm" is a month (Example: "M●-04" – monthly reports for April ●, "M●-03C" – cumulative monthly reports for March ●. "main-Old.html" file provides links to reports for the previous periods. You can see an example of this file in Fig. 3.

Folder [Download] is used to store center specific files, like "ftprun.run" or updates and patches for OMS program.

Microsoft Access● database files (Month_dump.mdb, MonthCumul_dump.mdb and Quarter_dump.mdb) contain procedure-level data calculated by the report system. These files store data for "Current Month Reports", "Cumulative Reports" and "Quarterly Reports" respectively. Almost all parts of the report system use these files – not the original Medical Record and Patient Interview patient-level tables.

[Month], [Quarter], [MonthCumul] and sub-folders of [OLD] folder contain reports for different periods but all of them have the same structure, so let us consider the [Quarter] folder only. All report pages can be divided into the two groups:

1) report pages that show information only for a specific procedure group (in current version of the report system these files include a chart and a table corresponding to this chart);

2) report pages that include information for all procedure groups on one page (in current version of the report system these files include tables only).

report_index_file_1.html through report_index_file_N.html are index files for reports that require separate page for each procedure group (first type of reports). These index files do not include any reports, they just provide access to report pages. For example, "ind_index.html" files (see Fig. 4) contain links to pages were you can get the charts and tables with data for the "General Indicators" reports.
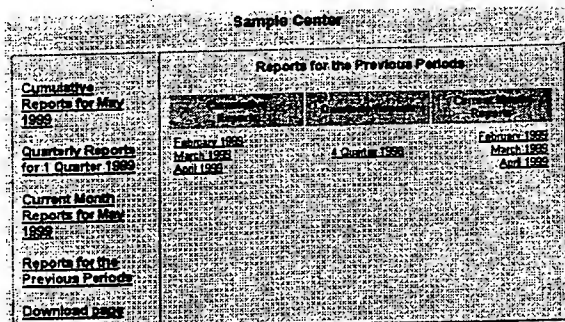
Fig. 3. Main page for "Reports for Previous Period".
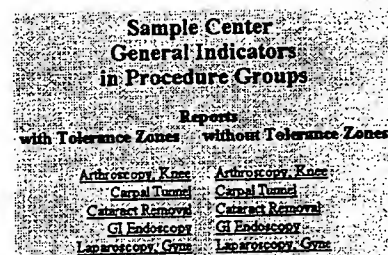
Fig. 4. Index file for General Indicators

At this moment the full list of index files is the following:

1. Age_Distribution_index.html   Index file for "Age Distribution" reports;
2. anest_index.html   Index file for "Complication by Anesthesia" reports;
3. ind_index.html   Index file for "General Indicators" reports;
4. payor_index.html   Index file for "Complications by Payor" reports;

5.	recovtime_ind●tml	Index file for "Recov●Time" reports;
6.	surgtime_index.html	Index file for "Surgery Time" reports.

combo_report_file_1.html through *combo_report_file_H.html* are report files for reports where data for all procedure groups are combined in one file. At this moment these files contain tables only and the list of such files is the following:

1.	Executive_Table.html	"The Executive Benchmark Table" report tables;
2.	DataTable.html	"Data Tables" report tables.

[**Month**], [**Quarter**] and [**MonthCumul**] folders contain a special file with the name in the MM-DD-YYYY format. The name of the file is the end date of the reports in the given folder. This file is used by the report system to determine the period of reports. Sub-folders in [**OLD**] folder do not have this file, because the period of reports can be easily determined using folder's name.

[***Proc_1***], [***Proc_2***],..., [***Proc_k***],..., [***Proc_Z***] folders represent different procedure groups for reports of the first type (separate pages for each procedure group). The names of these folders are derived from the names of corresponding procedure group by skipping all not alphanumeric characters, leaving "_" and "-" symbols in unchanged form and changing all spaces to "_" (Example: the folder for procedure group "D&C/Hysteroscopy" is "DCHysteroscopy", "ENT - T&A < 12" is "ENT_-_TA__12"). Each report in these folders is represented by two files: *report_file_k.html* and *report_file_k.gif*. The HTML file includes a table and a chart in GIF format (Example: "Age Distribution" for procedure group " Carpal Tunnel" is represented by the files "Age_Distribution2.html" and "Age_Distribution2.gif" in the folder "CarpalTunnel").

[***group_1***],..., [***group_k***],..., [***group_T***] are corporate group folders. They have the same structure as [**centers**] folder. The name of a corporate group folder is the three-letter USERCODE of the group. For the convenience, currently, corporate group usercodes begin with "ZAA", but there is no special limitations so any letters can be used.

The structure of the report system

The previous chapter of the documentation described the reports themselves. In this chapter the report system and its relationships with report files will be described.

```
[SOIX_REPORT_SYSTEM]
|
+---[Data]
|   |   Soix.mdb
|   +---[archive]
|   |       yyyymmdd.zip
|   \---[backup]
|       \---[yyyymmdd]
|           +---[AAA]
|           |       MEDUP.DBF
|           |       PATUP.DBF
|           \---[XYZ]
|                   MEDUP.DBF
|                   PATUP.DBF
+---[INI]
|       Info.txt
|       report.ini
+---[Log]
|       Executive_Table.log
|       Comparison_table.log
|       DataTable.log
|       Data_calculator.log
|       Executive_Table_Paper_Reports.log
|       GrabFile.log
|       ProcDistrib.log
|       report.log
+---[LST]
|   |   Comparison_table.lst
|   |   Corporate_Members.lst
|   |   DataTableItems.lst
|   |   Executive_Table.lst
|   |   Indicators.lst
|   |   LogMessages.lst
|   |   ProcConv.lst
|   |   ProcDistrib.lst
|   |   Sites.lst
|   |   Stage1.lst
|   |   Stage2.lst
|   |
|   \---[Templates]
|           Sample-Sites.lst
|           Full_List_Sites.lst
+---[Programs]
|   +---[Paper_Reports]
|   |       Executive_Table_Paper_Reports.exe
|   |       Comparison_table.exe
|   \---[Web_Reports]
|           APPENDER.mdb
|           Chart_Generator.exe
|           Executive_Table.exe
|           DataTable_Creator.exe
|           Data_Calculator.exe
|           ProcDistrib_Creator.exe
\---[Template]
    |   Age_Distribution2.html
    |   Anest.html
    |   Anest2.html
    |   ind.html
    |   ind2.html
    |   index-Old.html
    |   loopback.html
    |   main-Old.html
    |   main-Template.html
    |   main.html
    |   Payor.html
    |   Payor2.html
    |   RecovTime2.html
    |   SurgTime2.html
    |
    +---[All]
    |       index-Old.html
    |       main-Old.html
    |       main-Template.html
    |       main.html
    |
    +---[Img]
    |   \---[centers]
    |           AAA.jpg
    |           XYZ.gif
    \---[NewCenterTemplateFolder]
        |
        +---[Download]
        +---[Month]
        +---[MonthCummul]
        +---[Quarter]
        |   index.html
        \   main-Old.html
```

> Caution: This tree structure can be easily customized. To simplify the manual, the current tree structure is used, so if you have customized some of the paths then replace the default paths used in the documentation with your own.

[Data] *folder*

`Soix.mdb`

This is the main database for SOIX report system. There are two tables inside this file: MEDREC and PATINT2. MEDREC contain all medical records and PATINT2 – all patient interview records. This file is used by `Data_Calculator` module only (see the description of this module later).

[Archive] folder and [Backup] folder

These folders are not used anymore. They were used to store incremental files produced by OMS 2.0.

[INI] *folder*

This folder contains the configuration files. These configuration files are designated for an end user and they allow to define "what reports will be generated". You cannot modify the layouts or mathematical expressions that are used by the report system – "how reports will be generated". These files should be modified every time when new reports are generated. The current version of the SOIX reports system supports one file only.

> Caution: The current version of the report system does not have checks of correctness of the parameters in the configuration files, so be very careful when you modify these files. In most cases, you will get a runtime error if there is a typo in the configuration files, but in some cases, if the typo is not a trivial one, the reports will be generated without any error messages but the results will be not the correct ones. Currently, TAB character is not supported, so use spaces to tabulate the configuration files.

`Report.ini`

This file is used to define the periods to generate reports for. The format of the file is the following:

`Name_of_Parameter=Value.`

Comments can be used also. To use comments type a ";" character in the beginning of the comment line. Everything after the ";" character will be ignored by the report system. Almost all modules of SOIX report system use this file. In the APPENDIX, you can see the current version of `Report.ini` file.

Let's consider all parameters in more details.

Name of field	Allowed values	Description
CalculationDate	mm/dd/yyyy	The report system works in the following way: by default, it determines the current periods for Quarterly and Monthly reports using the current system date. For example, when you run the report system on 9/30/■■ as the "current month" for reports, it uses the 8th month (August) and as the "current quarter" it uses the 3rd quarter (from June to August). SOIX generates reports on the 15th day of each month and this does not create any problems, but if one of the centers requests to generate reports before the 15th day but after the 1st day of a month then in this case, by default, the report system will use the previous month as the "current month". And this is not what we want because it is too early to generate the new reports (there is no patient interview records for most medical records) – we just want to recalculate the existing reports. So, to solve this problem, this parameter was introduced. If this parameter has empty value then SOIX report system

		uses the system date as the "cu~~rrent d~~ate", if it is not empty then it uses a value of this parameter. Also t~~his~~ parameter is required to generate sample reports. There is a special version of "soix.mdb" file for sample reports. All records in this database are dated before June~~XX~~ so if the system date is used as the datum then only reports for previous periods can be generated, but if you make the CalculationDate equal to any day in June then May is treated as the "current month".
MinNumberOfCases	Integer	Only procedures that have "MinNumberOfCases" or more cases are shown in the "The Executive Benchmark Table" and in the paper reports.
Confidence	Real	This is a coefficient before standard deviation to calculate tolerable limits.
FoundationDate	mm/dd/yyyy	This date is used as the beginning date for the cumulative reports.
QuarterlyReports	Yes, No	Generate quarterly reports?
QuarterStart	1,2,3,4	Beginning quarter for quarterly reports
QuarterYearStart	yyyy	Beginning year for quarterly reports
QuarterEnd	1,2,3,4	End quarter for quarterly reports
QuarterYearEnd	yyyy	End year for quarterly reports
MonthlyReports	Yes, No	Generate "current month reports"?
MonthStart	1-12	Beginning month for "current month reports"
MonthYearStart	yyyy	Beginning year for "current month reports"
MonthEnd	1-12	End month for "current month reports"
MonthYearEnd	yyyy	End year for "current month reports"
CumulativeMonthlyReports	Yes, No	Generate "cumulative reports"?
CumulativeMonthStart	1-12	Beginning month for "cumulative reports"
CumulativeYearStart	yyyy	Beginning year for "cumulative reports"
CumulativeMonthEnd	1-12	End month for "cumulative reports"
CumulativeYearEnd	yyyy	End year for "cumulative reports"
RunMode		Currently this parameter is not used.
CleanedDBF		Currently this parameter is not used.
StandardReport	Yes, No	Currently this parameter is not used.
StartDate	mm/dd/yyyy	Currently this parameter is not used.
EndDate	mm/dd/yyyy	Currently this parameter is not used.

Other configuration files

Currently there is one more configuration file. Its name is "new-soix.ini" and it is located in the Windows main directory (this directory can be determined using %WINDIR% environment–variable). This file is used by all modules as the main purpose of this file is to provide paths to the different components of the report system.

new-soix.ini

The format of the file is the following:

```
Name_of_Parameter=Value
```

Here is the list of all parameters in this file:

Name of field	Allowed values	Description
Shared parameters that are used by all modules.		
INIPath	A path to a directory.	A path to the folder where INI config files are located.
LogPath	A path to a directory.	A path to the folder where LOG files will be created.
MDBFile	Full path to a file	Full path to the report master database.
LSTPath	A path to a directory.	A path to the folder where LST files are located.
OMS2ArchiveDirectory	A path to a directory.	This parameter was used when OMS 2.0 was used as a front end, so now the parameter is not used.
OMS2BackupDirectory	A path to a directory.	This parameter was used when OMS 2.0 was used as a front end, so now the parameter is not used.

TemplateDirectory	A path to a directory.	A path to the folder where ⬤L template files are located.
UploadDirectory	A path to a directory.	A path to the folder where centers upload incremental files.
InternetDirectory	A path to a directory.	A path to the folder where centers reports are located.

Parameter used by the paper report modules only		
NewReportsInternetDirectory	A path to a directory	A path to the folder where new reports will be generated. This parameter was introduced as the report generation process takes a lot of time and there is a probability that centers may access their reports during this process. In this situation centers will not be able access their reports at least, but at the same moment there is a probability that these actions may interrupt the report generation process.
SavePathForPaperReport	A path to a directory.	This parameter points to the path where paper report will be generated.
Target	"Web" or "Folder"	This parameter defines the way in which the paper report will be generated. When it is equal to "Folder" than these reports are placed in the separate folder defined by "SavePathForPaperReport" parameter. If this parameter is equal to "Web" than the paper report files will be placed in the centers folders like the modules that generate web-reports do. This option allows to make these reports available for the access trough the Internet.

Parameters used by "New_Center_Prepare" module		
NTSecDirectory	Name of folder	This parameter defines a name of the folder where programs from the NTSEC pack are located. These programs are used to set up Windows NT permissions for the centers' upload folders.
ApacheUsersFile	Full path to a file.	This parameter defines a full path to apache users file that will created from scratch by the "New_Center_Prepare" module.
ApacheUsersFile	Full path to a file.	This parameter defines a full path to Apache users file that will created from scratch by the "New_Center_Prepare" module. This file is used to restrict an access to member sites.
ApacheGroupsFile	Full path to a file.	This parameter defines a full path to an Apache groups file that is used to restrict an access to member sites.
NewCenterTemplateFolder	A path to a folder	This parameter points to a directory where template files are stored. These files are used to create sites for new centers.
PrepareUploadStuff	"Yes" or "No"	Prepare "upload" folder for a new center?
PrepareDownloadStuff	"Yes" or "No"	Prepare "download" folder for a new center?
PrepareHTMLFiles	"Yes" or "No"	Prepare index HTML files for a new center?

[Log] *folder*

This folder is used to store log files that are generated by different modules of SOIX report system.

Executive_Table.log

This file is generated by Executive_Table module of the report system.

Executive_Table_Paper_Reports.log

This file is generated by Executive_Table_Paper_Reports module of the report system.

DataTable.log

This file is generated by DataTable module of the report system.

Data_Calculator.log

This file is generated by Data_Calculator module of the report system.

`GrabFile.log`

This file is generated by `GrabFile` module of the report system.

`ProcDistrib.log`

This file is generated by `ProcDistrib` module of the report system.

`report.log`

This file is generated by `report` module of the report system.

`Comparison_Table.log`

This file is generated by `Comparison_Table` module of the report system.

[LST] *folder*

This folder contains configuration files like the [**INI**] folder does. But unlike the [**INI**] folder, almost all of these files are responsible either for mathematical calculations or for the layout of the reports. So these files should be modified very rarely (Exception is `Sites.lst` file) only when some changes in the reports themselves are made. Most of these files are a list of strings that have the same structure. Usually each string consists of several fields and the fields are separated by "*****" character.

> Caution: The current version of the report system does not have checks of correctness of the parameters in the configuration files, so be very careful when you modify these files. In most cases you will get a runtime error if there is a typo in the configuration files, but in some cases, if the typo is not a trivial one, reports will be generated without any error messages but the results will be not correct ones. Currently, TAB character is not supported, so use spaces to tabulate the configuration files.

`Executive_Table.lst`

`Executive_Table.lst` is used by `Executive_Table` module. This file contains a list of indicators that will be shown in "The Executive Benchmark Table". The format of each string is the following:

```
Indicator_Name*Numerator*Denominator*Description*MinOrMax*Link
```

Name of field	Allowable value	Description
Indicator_Name	The same restrictions as whose for field name in MS Access	This is a name of the indicator, this name is used for internal purposes of "Executive_Table" module and as a link to the HTML file that describes the indicator. In Fig. 5, the label number 2 shows the place where this text is used. Some HTML tags may be used (Example: , <i>, <font>), as this text is inserted directly in html files without any parsing.
Numerator	the name of a field from "*_dump.mdb" tables	This field is used as the numerator to calculate an indicator. Expression that is used to calculate indicators is the following: Indicator = Numerator/Denominator*100%
Denominator	the name of a field from "*_dump.mdb" tables	This field is used as the denominator to calculate an indicator. Expression that is used to calculate indicators is the following: Indicator = Numerator/Denominator*100%
Description	any text string	Description of the indicator. In Fig. 5, the label number 1 shows the place where this text is used. Some HTML tags may be used (Example: , <i>, <font>), as this text is inserted directly into html files without any parsing.

| MinOrMax | "●", "Max" | Use "Min" for indicators that ●●●d be minimized and "Max" for indicators that should be maximized. |
| Link | a path to a html file | A path to the html file that describes this indicator. (Example: "/genrep/ind1.html") |

In the APPENDIX you can see the current version of `Executive_Table.lst` file.

Fig. 5. Example of "The Executive Benchmark Table" table.

`DataTableItems.lst`

`DataTableItems.lst` is used by `DataTable_Creator` module only.
`DataTable_Creator` module generates "Data Tables" file ("DataTable.html").
`DataTableItems.lst` consist of several sections. Each section corresponds to a separate table in "DataTable.html" file. Strings that are located inside each section are used to customize the rows in tables. Each section begins with the following string:

`---Name_of_Table*Total_by_Proc_Flag`

Name of field	Allowable value	Description

Name_of_Table	ny text	Name of a table. In Fig. the label number 1 shows the place where this text is used. Some HTML tags may be used (Example: \<br\>, \<i\>, \<font\>), as this text is inserted directly into an HTML file without any parsing.
Total_by_Proc_Flag	"TotByProc", ""	If this field equals to "TotByProc" then the last row "Total by Procedure" is calculated for this table, if this field is empty then this last row is not calculated. See Fig 6 labels 2.

Strings, following each section header, describe rows in the table. The format of these strings is the following:

```
Name_from_Dump_DB*Row_Name
```

Name of field	Allowable value	Description
Name_from_Dump_DB	the name of a field from "*_dump.mdb" tables	Module DataTable_Creator takes the value of Name_from_Dump_DB field in "*_dump.mdb" table and puts this value into the table without any modifications and calculations.
Row_Name	Any text	Name of a row. On Fig. 6 label number 3 shows the place where this text is used. Some HTML tags may be used (Example: \<br\>, \<i\>, \<font\>), as this text is inserted directly into an HTML file without any parsing.

ANESTHESIA
Site: Sample Center (SMP)
Date of Procedure: 01/01/1999 - 03/31/1999
(Table was created on 06/30/1999)

	Arthroscopy, Knee	Carpal Tunnel	Cataract Removal	GI Endoscopy	Laparoscopy, Gyne	Total
General	139	3	0	0	34	176
Spinal	11	0	0	0	0	11
IV/Local-MAC	0	8	63	91	0	162
Local	0	5	1	0	0	6
Other	0	33	0	0	0	33
Total by Procedure	150	49	64	91	34	388

PAIN AND COMPLICATIONS
Site: Sample Center (SMP)
Date of Procedure: 01/01/1999 - 03/31/1999
(Table was created on 06/30/1999)

	Arthroscopy, Knee	Carpal Tunnel	Cataract Removal	GI Endoscopy	Laparoscopy, Gyne	Total
No Pain, No Complications	123	45	62	87	10	327
Pain	17	4	2	3	23	49
Nausea	12	0	0	1	4	17
Vomiting	6	0	0	0	2	8
Instability Of Vital Signs	1	0	0	1	0	2
Respiratory Problems	0	0	0	0	1	1

Fig. 6. Example of "Data Tables" file

`Indicators.lst`

`Indicators.lst` is used by `Chart_Generator` module only. `Indicators.lst` consist of several sections. Each section corresponds to a separate report (the current version of `Chart_Generator` module generates the following reports: "Age Distribution", "Recovery Time", "Surgery Time", "General Indicators", "Complications by Payor", "Complication by Anesthesia"). Each section begins with the following string:

`---With_Tolerance*Without_Tolerance*Chart_Header*Chart_Footer`

Name of field	Allowable value	Description

With_Tolerance	the name of a HTML file without extension or nothing	The HTML file must be in the [SOIX_Report_Sytem]\[Template] folder. If this field is empty then the version with tolerance limits of this report is not generated. In the section where folder [SOIX_Report_Sytem]\[Template] is described you can find more information about internal structure of template files. (Example: for "General Indicators" reports with tolerance zone the template file is "ind.html", so With_Tolerance field equal "ind".
Without_Tolerance	the name of a HTML file without extension or nothing	The HTML file must be in the [SOIX_Report_Sytem]\[Template]. If this field is empty then the version with tolerance limits of this report is not generated. In the section where folder [SOIX_Report_Sytem]\[Template] is described you can find more information about internal structure of template files. (Example: for "General Indicators" reports without tolerance zone the template file is "ind2.html", so With_Tolerance field equal "ind2".
Chart_Header	Any text	This text is used as a header in the report chart. See Fig. 7, label 1. To insert "Enter" in this string use "‖" (double vertical bar). Also values of the fields from "*_dump.mdb" tables and values of all indicators calculated inside Chart_Generator module can be used. To use them, use the following format: %Name_Of_FieldThisSite% for current center and %Name_Of_FieldAllSites% for all centers (Example: Total Medical Records field has the name TotMR, so placeholders for it will be %TotMRThisSite% and %TotMRAllSites%). In each section of Indicators.lst file, a user assigns names for each indicator that is calculated by Chart_Generator module – although these names and values of indicators are not saved anywhere, you can still use them in Chart_Header field (Example: In section "General Indicators" indicator with name "ind1" is defined, so you can use placeholders %ind1AllSites% and %ind1ThisSite%.)
Chart_Footer	Any text	This text is used as a footer in the report chart. See Fig. 7, label 2. All instruction for Chart_Header field can be used for this field.

Indicators for each section are described after the section header. The format of indicator description string is the following:

```
Indicator_Name*Numerator*Denominator*AxesLabels
```

Name of field	Allowable value	Description
Indicator_Name	The same restrictions as whose for field name in MS Access	Used for internal calculations only. Make sure that there is no any field in "*_dump.mdb" files with the same name.
Numerator	the name of a field from "*_dump.mdb" tables	This field is used as the numerator to calculate the indicator. The expression that is used to calculate indicators is the following: Indicator = Numerator/Denominator*100%
Denominator	the name of a field from "*_dump.mdb" tables	This field is used as the denominator to calculate the indicator. The expression that is used to calculate indicators is the following: Indicator = Numerator/Denominator*100%
AxesLabels	Any text	This text is used in charts as label of the indicator. To put "*" character use double caret characters ("^^"). See Fig. 7 label 3.

The diagram below shows the *level* of the indicator achieved in YOUR CENTER as a *wide white bar*.
The AVERAGE level at *all the participating centers* is shown as a *blue bar*.

Recovery Time for Sample Center (SMP) on 06/30/1999
Carpal Tunnel. Date of Procedure: 01/01/1999 - 03/31/1999

1

Legend:
- □ Your Site
- ■ Average

X-axis categories: 0-29, 30-59, 60-89, 90-119, 120-149, 150-179, 180-209, 210-239, 240+

3

2

Recovery Time (min)
All centers average: 132 min. Your center: 63 min.
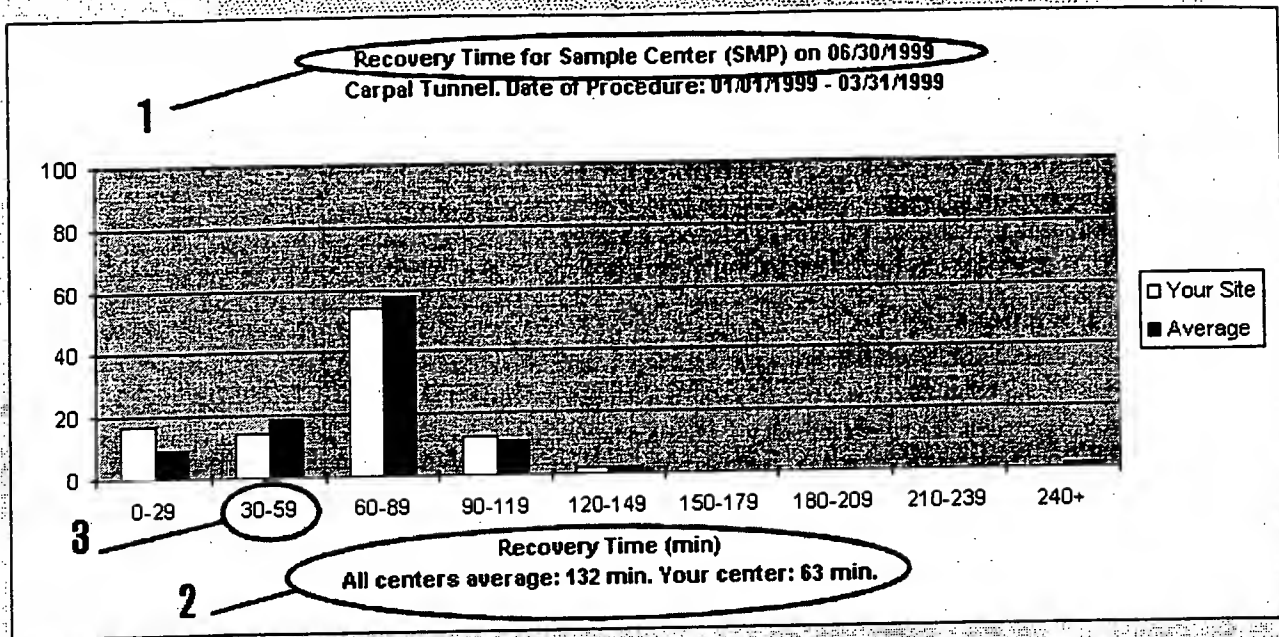
	0-29	30-59	60-89	90-119	120-149	150-179	180-209	210-239	240+
All Sites:									
Ratio	8.9	19.0	58.0	10.9	2.0	0.0	0.0	0.0	1.2
Cases for Given Range	44	94	287	54	10	0	0	0	6
Total Cases: 495									
Your Site:									
Ratio	16.7	14.6	54.2	12.5	2.1	0.0	0.0	0.0	0.0
Cases for Given Range	8	7	26	6	1	0	0	0	0
Total Cases: 48									

Fig. 7. A sample of report page.

LogMessages.lst

Almost all report system modules use this file. This file defines different log messages. The format of each string is the following:

```
Message_Name=Text_of_Message
```

where `Message_Name` is a name of message (report system modules use this name to refer to log messages) and `Text_of_Message` is a text of message. Usually a message text is much longer then Message_Name, so the main purpose of LogMessages.lst file is to eliminate extra text and also this lst file allows to attain the similarity of log messages throughout all modules. See the current version of this file in the APPENDIX.

Comparison_table.lst

This file is used by `Comparison_table` module. It is divided into several sections. Each section begins with a header and represents a separate group of indicators in "Comparison Table" (paper reports). The format of the header is:

```
---Header_of_indicator_group*
```

where Header_of_indicator_group contains a text that will be used as a header of indicator group (See Fig 8, label 1). If Header_of_indicator_group is empty then no header is used and all indicators in this group have a bold font (see Fig. 8, label 3).

Each section is followed by indicator definitions. The format of these definitions is the following:

```
Numerator*Denominator*Descipting_Text*
```

Name of field	Allowable value	Description
Numerator	the name of a field from "*_dump.mdb" tables	This field is used as a denominator to calculate the indicator. The expression that is used to calculate indicators is the following: Indicator = Numerator/Denominator*100%
Denominator	the name of a field from "*_dump.mdb" tables	This field is used as the denominator to calculate the indicator. The expression that is used to calculate indicators is the following: Indicator = Numerator/Denominator*100%. If Denominator is empty then Numerator is used only and the expression becomes as Indicator=Numerator
Descipting_Text	Any text	Name of a row. In Fig. 8 , the label number 2 shows the place where this text is used. Some HTML tags may be used (Example: , <I>, <font>), as this text is inserted directly into an HTML file without any parsing.

Corporate_Members.lst

Almost all modules use this file. This file describes corporate members. Each corporate member is represented by a separate section. All sections have a header. The format of headers is:

```
---GroupName*GroupUsername*GroupUserCode*members_access
```

where GroupName is a name of the group; GroupUsername is a username of the group (this username is used to access reports); GroupUserCode is a three-letter usercode of the group; members_access ("Yes" or "No") is used to restrict the access of separate members to the reports. members_access is used by "New_Center_Prepare" module to customize Apache ".htaccess" files. If members_access="Yes" than the separate members of the group can access their reports otherwise only GroupUsername can be used to access the reports.

The header of the section is followed by a list of usercodes of centers that belong to the group. The usercodes are separated by "Enter" key.

YOUR PROCEDURE GROUPS

3 2 1	Arthroscopy, Knee		GI Endoscopy		Cataract Removal		Carpal Tunnel		Laparoscopy, Gyne	
	Your Center	All Centers	Your Center	All Centers	Your Center	All Centers	Your Center	All Centers	Your Center	All Centers
Number of Patients	150	1269	91	1372	64	856	49	505	34	388
Time (Minutes)										
Time For Procedure	37	46	176	124	27	26	16	52	31	99
Time For Recovery	98	184	657	454	29	30	63	132	111	362
Time For Patient Interview	4	4	3	3	2	2	4	4	3	3
Problems Before Leaving Surgery Center										
Percent Normal Discharge	100.0	99.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percent without Problems	82.0	84.9	95.6	97.1	96.9	96.6	91.8	95.0	29.4	36.6
Percent with Post Operative Pain	53.3	61.2	2.2	1.5	4.7	5.3	18.4	14.9	67.6	60.1
Percent Medications Ordered	100.0	100.0	50.0	50.0	100.0	100.0	100.0	100.0	100.0	100.0
Percent Pain Relieved	96.3	97.7	50.0	50.0	66.7	71.1	100.0	96.0	100.0	100.0
Percent Pain Prescription Given	99.3	99.0	2.2	1.5	3.1	3.0	100.0	97.6	91.2	90.7

Fig. 8. An example of "Comparison Table" that is used in "Paper Reports".

ProcConv.lst

This file is used by `Appender` and `Data_Calculator`. This file defines a mapping table between the CPT codes and the procedure groups. When `Appender` module appends new data it ignores the "PROC" fields in incremental files and uses this mapping, in the same way `Data_Calculator` ignores the existing "PROC" field in the report master database and recreates this field using the mapping. All strings in `ProcConv.lst` file have the same format:

```
CPT_Code* Procedure_Group
```

where `CPT_Code` is a five digit CPT code and `Procedure_Group` is the name of the corresponding procedure group. See the current version of `ProcConv.lst` file in the APPENDIX.

ProcDistrib.lst

`ProcDistrib.lst` file is used by `ProcDistrib` module. It defines what fields from "*_dump.mdb" databases should be displayed in the "Case Distribution" table. The format of the file is the following:

```
Field_Name*Descripting_Text*
```

Name of field	Allowable value	Description
Field_Name	the name of a field from "*_dump.mdb" tables	Use only fields that contain absolute number of cases. In current version of the report system almost all fields satisfy this restriction – only the fields with average times do not satisfy.
Descipting_Text	Any text	Name of the column. In Fig. 9 , the label number 1 shows the place where this text is used. Some HTML tags may be used (Example: , <i>, <font>), as this text is inserted directly into an HTML file without any parsing.

Procedure Name	Center	Medical Records	Patient Interview
Arthroscopic ACL Repair (1 center)	QCA	2	2
	Total	2	2
Breast augmentation (3 centers)	AAM	10	10
	AAS	19	15
	RSA	1	1
	Total	30	26
	AAD	47	47
	AAE	14	14
	AAL	8	8
	AAS	10	5
Rhinoplasty (2 centers)			
	Total	10	9
	AAE	1	1
	AAM	3	3
Rhytidectomy (4 centers)	AAS	1	1
	RSA	1	1
	Total	6	6
Grand Total		4,999	4,581

Fig. 9. An example of "Case Distribution" table

Current version of the file contains the two strings only:

```
TotMR*Medical Records*
TotPI*Patient Interview*
```

but this list can be easily expanded as a need in new columns arises. Currently, "Case Distribution" table is accessible to the SOIX staff only and is used to get a more complete picture of the current state of the report master database.

```
Sites.lst
```

Almost all modules of the report system use this file. It contains information about centers – it describes relationship between usercodes, real names and usernames. The format of this file is:

```
Three_Letter_USERCODE*real_Name_of_center*Centers_Username
```

where `Three_Letter_USERCODE` is the usercode of the center; `real_Name_of_center` is the real name of the center and `Centers_Username` is the username. Note that string

```
ALL*All centers*
```

MUST be first. This string defines usercode for all centers.

```
Stage1.lst
```

This file is used by Data_Calculator module only. It describes the mathematical expressions using the MS SQL language. To get a table that contains procedure level data for a certain period, Data_Calculator module runs in two stages. On the first stage, the module uses Stage1.lst file to create a "SELECT"-query that combines MEDREC and PATINT2 tables in one table. Instead of the original fields, this table contains new calculated fields that are used to calculate fields in "*_dump.mdb" files on the next stage. On this stage, the records are not grouped by procedure groups and centers usercodes – they are still patient-level ones.

The format of strings of this file is the following:

`Name_of_Field_1*SQL_Expression`

Name of field	Allowable value	Description
Name_of_Field_1	The same restrictions as whose for field name in MS Access	When you select a name for this field, make sure that this field must be unique among fields in MEDREC table, PATINT2 table and fields defined in Stage1.lst and Stage2.lst files.
SQL_Expression	Expression in MS SQL language	Use help files for MS Access or Visual Basic to get additional information about MS SQL language. In SQL_Expression field, you can use Name_of_Field_1 fields from other strings of Stage1.lst file, but be careful and do not create an unsolvable situation when in the current string you use another field, but the SQL_Expression for that field uses Name_of_Field_1 for the current string. This is so called "Circular reference".

A simplified version of "SELECT"-query used on the first stage may be written in the following way:

```
SELECT expression_1 AS field_1,...,expression_k AS field_k,...,expression_N AS field_N FROM
table
```

Name_of_Field is used as *field_k* and SQL_Expression is used as *expression_k*.

Stage2.lst

This file is used by Data_Calculator module only. It describes mathematical expressions using MS SQL language. This file is used on second stage of the calculation of MasterTable (later, records from Mastertable are used to populate "*_dump.mdb" files). On this stage MasterTable is finally calculated. It contains procedure-level data. Only this procedure-level data is used by other modules on next steps of report generation process.

The format of strings of this file is the following:

`Name_of_Field_2*Data_Type_of_Field*SQL_Expression*Denominator*`

Name of field	Allowable value	Description
Name_of_Field_2	The same restrictions as whose for field name in MS Access	When you select a name for this field, make sure that this field must be unique among fields in MEDREC table, PATINT2 table and fields defined in Stage1.lst and Stage2.lst files.
Data_Type_of_Field	Text, Long, Single	Defines a type of the field. Currently three data types are supported but this list can be easily expanded.

SQL_Expression	⬤pression in MS SQL language	Use help files for MS A⬤s or Visual Basic to get additional information about MS SQL language. Inside the SQL_Expression you can use Name_of_Field field from other strings of Stage1.1st file, but be careful and do not create an unsolvable situation when in current string you use another field, but SQL_Expression for that field uses Name_of_Field of current string.
Denominator	Any item from the Name_of_Field_2 list	Most of the fields from Name_of_Field_2 list are absolute numbers of cases, so to get a value for the whole industry, values for different centers must be just summed up. Some of the fields like average times are not applicable to this rule, they contain relative values, so a simple addition cannot be used to calculate the whole industry values. In this case the following mathematical expression is used: $$Ind_{All} = \frac{\sum_{k=1}^{N}(Ind_k \times Denom_k)}{Denom_{All}},$$ where Ind_{All} – value for the whole industry, Ind_k – value for k center, $Denom$ – denominator for the field. So Denominator defines a field that is the denominator for a given indicator. If Denominator is empty then an ordinary addition is used.

[Templates] folder

Files in this folder are not used by the report system. The purpose of the folder is to store ready-to-use configuration files for different types of reports. For example, you can use this folder to store configuration files used to generate sample reports. Currently, this folder contains two files only (Sample-Sites.1st and Full_List_Sites.1st) – they are two versions of Sites.lst file: one is for the usual reports, another for the sample reports.

When the list of centers expands, you should modify Full_List_Sites.1st file first and then copy it to [LST] folder under Sites.1st name. In this case, there is no need to backup Sites.lst file when sample reports must be generated.

[Programs] *folder*

This folder contains all modules of the report system. Currently all modules may be divided into two groups: for "Paper Quarterly Reports" and for "Web Reports". [Paper_Reports] and [Web_Reports] folders were created according to this breakdown.

[Paper_Reports] folder

This folder contains modules that are used to generate reports for the "Paper Quarterly Report". The HTML files generated by the paper reports modules are created in the folder defined by "SavePathForPaperReport" (currently it is "C:\SOIX\WebSites\SOIX\Paper_Reports") parameter in the "new-soix.ini" file. The current structure of the "Paper_Reports" folder is:

```
[PAPER_REPORTS]
+---[Comparison_Table]
¦   ¦
¦   +---[Qyyyy-qq]
¦        ¦
¦        +---XYZ-FullNameOfXYZ.html
¦
+---[Executive_Table]
```

`Executive_Table_Paper_Reports.exe`

This module generates "Executive table" for the paper quarterly report. It creates HTML files for all quarters defined in report.ini file.
As input files, this module uses:
1.   "report.ini" – defines periods for which the reports are calculated;
2.   "Executive_Table.lst" – defines indicators that will be used in "Executive table";
3.   "sites.lst" – defines a list of sites for which the reports are calculated;
4.   "LogMessages.lst" – defines a list of log messages;
5.   "*_dump.mdb" – contain data for calculations.

Output files are:
1.   "Executive_Table_Paper_Reports.log" – log file for this module;
2.   HTML file with the names in the format "*UserCode-CentersFullName*.html" – report files.

Currently the reports are generated for the top five procedure groups only. Constant "NumberOfProcedures" in the `Executive_Table_Paper_Reports` module defines the number of these procedures.

`Comparison_table.exe`

This module generates "Comparison table" for the paper quarterly report. It creates HTML files for all quarters defined in "report.ini" file.
As input files this module uses:

1.   "report.ini" – define periods for which the reports are calculated;
2.   "Comparison_table.lst" – defines indicators that will be used in "Comparison table";
3.   "sites.lst" – define a list of sites for which the reports are calculated;
4.   "LogMessages.lst" – defines a list of log messages;
5.   "*_dump.mdb" – contain data for calculations.

Output files are:
1.   "Comparison_table.log" – log file for this module;
2.   HTML file with the names in the format "*UserCode-CentersFullName*.html" – report files.

Currently the reports are generated for the top five procedure groups only. "NumberOfProcedures" constant in the source code of `Comparison_table.exe` module defines the number of procedures.

[**Web_Reports**] folder

This folder contains modules of the report system that generate reports provided through the Internet.

This module appends incremental files into "Report Master Database" ("soix.mdb") file. It uses only one configuration file (new-soix.ini). This module scans all centers directories located under upload directory defined by parameter "UploadDirectory" ("new-soix.ini" file) and append incremental records from these folder to the master database (soix.mdb). Appended incremental files are moved to the centers "Backup" folder located under their upload directories.

`Chart_Generator.exe`

This module generates the large part of reports. It creates the following reports:

1. Age Distribution,
2. Recovery Time,
3. Surgery Time,
4. General Indicators,
5. Complications by Payor,
6. Complication by Anesthesia.

As input files this module uses the following ones:

1. Corporate_Members.lst
2. Indicators.lst
3. "*_dump.mdb" files
4. MasterTable.mdb
5. Sites.lst
6. LogMessages.lst
7. all HTML template files from folder, defined by "TemplateDirectory" parameter in "new-soix.ini" (currently it is [SOIX_Report_System]\[Template]).

As it was written in "The structure of report folders on the SOIX private web site", all reports may be divided into two types: the reports which contain data for all procedure groups in one page and whose that have separate page for each procedure group. Actually `Chart_Generator.exe` module is the only one that generates reports represented in separate pages. As it was written before, report folders for all periods have special sub-folders for each procedure group (in Fig.1 these folders are shown as *[Proc_1]*, *[Proc_2]*, *[Proc_k]* and *[Proc_Z]*) and there are the index files (on Fig.1 these files are referred as `report_index_file_1.html`, ..., `report_index_file_M.html`) that contain links to this report pages. All these folders and files are generated by `Chart_Generator.exe`. Also, this module refreshes main-Old.hmtl, main page of each center (index.html file that are located directly in the center's folder, not in sub-folders), and index.html files for all recalculated periods.

If centers sent their favorite pictures to place in their report title pages , to use them you should:
1. convert pictures to JPEG or GIF format;
2. name them using the format "USERCODE.(jpg or gif)" (For Example aaa.jpg, aba.gif).
3. put all these files in sub-folder "img\centers" of "SOIX_Report_System\Template" folder.

If a center that has a c●●m picture is included in "Sites.lst" the●●s main page and main picture will be updated by `Chart_Generator.exe`.

`Chart_Generator.exe` module has a very important difference from other report modules. When other report modules are running they update only the report files that they generate – they do not delete any other report files, so there is no need to rerun other modules later. But when the `Chart_Generator.exe` module is running, it deletes the whole report folder for a given period, so all other report generating modules should be rerun. Currently such behavior is pretty reasonable because `Chart_Generator.exe` module takes more then 90% of time to create new reports.

`Executive_Table.exe`

This module creates "The Executive Benchmark Table" tables for quarter reports. As input files it uses:
1. Sites.lst
2. Corporate_Members.lst
3. Executive_Table.lst
4. LogMessages.lst
5. "*_dump.mdb" files
6. report.ini
7. new-soix.ini

As output files, it creates "Executive_Table.html" files for all quarters defined in "report.ini" file. This module can be easily modified to generate the reports for other periods, not for quarters only.

`DataTable_Creator.exe`

This module generates "Pain, Complication & Patient Satisfaction" tables.
Input files:

1. DataTableItems.lst
2. Corporate_Members.lst
3. Sites.lst
4. "*_dump.mdb" files
5. report.ini
6. new-soix.ini

Output files:

1. DataTable.log
2. DataTable.html files for each report period defined in "report.ini"

`Data_Calculator.exe`

This module calculates procedure-level data for all centers. Only this module and "APPENDER" have direct access to the SOIX main database (soix.mdb file), all other modules just use procedure-level data. This allows to eliminate extra calculations, for example if the layout of several reports is changed then there is no need to recalculate the data, you just run the

necessary modules and the refresh the reports. In most cases it take much less time then when the data should be recalculated.

As input files this module uses:

1. soix.mdb
2. Corporate_Members.lst
3. Stage1.lst
4. Stage2.lst
5. report.ini
6. new-soix.ini
7. sites.lst
8. LogMessages.lst
9. ProcDistrib.lst

And output of the module is:

1. all "*_dump.mdb" files;
2. "MasterTable.mdb" files in "centers\All\MasterTableArchive" folder.

Actually "MasterTable.mdb" files do not contain any new data they just duplicate data in "*_dump.mdb" files, but the data organized in a different way – the data for all centers for a given period are stored in one place. For some reports it allows to eliminate extra hard drive access.

ProcDistrib_Creator.exe

This module creates "Case Distribution" tables. These tables are created for the whole network only. They show case distribution by procedure group and by site inside each procedure group. Currently the number of medical records and patient interviews are present on these tables, but this list can be easily expanded by editing ProcDistrib.lst file.

Input files:

1. new-soix.ini
2. report.ini
3. LogMessages.lst
4. ProcDistrib.lst

Output files:

1. ProcDistrib.log
2. ProcDistrib.html for all periods defined in report.ini file

[Template] folder

Age_Distribution2.html

This file is a template for "Age Distribution" report. This file used by "Chart_Generator" module only.

`Anest.html`

This file is a template for "Complication by Anesthesia" with tolerance zone report. This file used by "Chart_Generator" module only.

`Anest2.html`

This file is a template for "Complication by Anesthesia" without tolerance zone report. This file used by "Chart_Generator" module only.

`ind.html`

This file is a template for "General Indicators" with tolerance zone report. This file used by "Chart_Generator" module only.

`ind2.html`

This file is a template for "General Indicators" without tolerance zone report. This file used by "Chart_Generator" module only.

`index-Old.html`

This file is used for "Reports for Previous Periods". `Chart_Generator.exe` module creates index.html files for these reports. This file is used by Chart_Generator module.

`loopback.html`

This file is shown instead of reports when a center does not have data for certain period. This file is used by Chart_Generator, DataTable_Creator and ProcDistrib_Creator modules.

`main-Old.html`

This file is used as main page for reports for previous period. It contains links to these reports. You may see a sample of this file on Fig.3. This file is used by Chart_Generator module.

`main-Template.html`

This file is used as main index page for "Current Month Reports", "Quarterly Reports" and "Cumulative reports". This file is used by Chart_Generator module.

`main.html`

This file is used as center's main page. This page includes either default SOIX picture or a favorite picture of the center. This file is used by Chart_Generator module.

`Payor.html`

This is a template for "Complications by Payor" reports with tolerance limits. This file is used by Chart_Generator module.

`Payor2.html`

This is a template for "Complications by Payor" reports without tolerance limits. This file is used by Chart_Generator module.

```
RecovTime2.html
```

This is a template for "Recovery Time" reports. This file is used by Chart_Generator module.

```
SurgTime2.html
```

This is a template for " Surgery Time" reports. This file is used by Chart_Generator module.

[All] folder

This folder contains files that are used for reports for the whole network. Currently there are four files in this folder:

```
1.    index-Old.html
2.    main-Old.html
3.    main-Template.html
4.    main.html
```

They have the same application as corresponding templates in the upper template folder.

[Img] folder

This folder stores various images that are used for reports. Currently it contains [centers] folder only. This folder is used to store centers' favorite pictures in the following format: "USERCODE.(jpg or gif)", where USERCODE is three-letter user code of a center (For example: aaa.jpg, aza.gif).

How to install the report system

1. Copy whole "Soix_Report_System" folder to the directory of you choice on the new computer;
2. Copy file "new-soix.ini" from "Soix_Report_System\ini" folder to your windows directory (this directory is defined by "WINDIR" environmental variable – you can check the value of this variable using "set" command by running it in the MS–DOS prompt);
3. Customize the copy of file "new-soix.ini" located in the windows directory – make sure that:
    a. Parameters "INIPath", 'LogPath", "MDBFile", "LSTPath", "TemplateDirectory", "NewCenterTemplateFolder" corresponds to the new location of the "Soix_Report_System" folder;
    b. Parameters "UploadDirectory", "InternetDirectory", "NewReportsInternetDirectory", "SavePathForPaperReport", "ApacheUsersFile", "ApacheGroupsFile" corresponds to the location of the web-server powered by Apache;
    c. Parameter "NTSecDirectory" corresponds to the location of "NTSEC" pack of command line utilities for ███████.

There is no need to customize "OMS2ArchiveDirectory" and "OMS2BackupDirectory" parameters as they are not used anymore.

How to make backup copies of the report system

The general rule to determine when backup copies should be made is the following: the data that was changes should be backed up at the end of day when these modifications were made. All folders that should be backed up are located on the main server – they are: "C:\SOIX" and "C:\Admin_Stuff". The destination folder for the backup copies is located on the developer workstation and this folder is "X:\SOIX_Backups". This folder has sub-folders in the format "yyyy-mm-dd" where "yyyy" is a year, "mm" is a month and "dd" is a day. Each folder corresponds to a backup that was made on "mm/dd/yyyy" day.

If there is no information when the data was changes (so the general rule is not applicable) the following schedule can be used:
1. Folders that should be backed up every day – centers upload folder ("C:\SOIX\WebSites\SOIX\upload") and the marketing databases ("C:\SOIX\Marketing_DataBases" folder);
2. Whole "C:\soix" folder and "C:\Admin_Stuff" folder should be backed up every one or two weeks.

To backup data the following steps should made:
1. Create a folder in the format "yyyy-mm-dd" in the "X:\SOIX_Backups" folder on the developer workstation (for example if today's day is 07/21/████ than "███-07-21" folder should be created);
2. Pack all folders that should be backed up and put the archives into the just created backup destination folder (in our example it will be "X:\SOIX_Backups\███-07-21"). ZIP, ARJ, RAR or any other packing format can be used but ZIP is more preferable as it is more commonly used format. For example if "C:\SOIX\WebSites\SOIX\upload" and "C:\SOIX\Marketing_DataBases" folders should be backed up, finally you should get two archive files ("Marketing_DataBases.zip" and "upload.zip") located in the "X:\SOIX_Backups\███07-21" folder.
3. If the size of a complete backup (when whole "C:\soix" folder and "C:\Admin_Stuff" folder are backed up) is not more than 650 Mbytes, this backup should be saved on a CDR disk. When the size is more than 650 Mbytes but less then 700 Mbytes when CDR disks can be used too, but in this case special 700 Mbytes (80 minutes) disks should be used.

How to generate reports

1. Copy the whole **"centers"** folder ("InternetDirectory" parameter) to the path defined by "NewReportsInternetDirectory" parameter (currently it is "C:\SOIX\WebSites\SOIX\NEW") in "new-soix.ini" file ("c:\winnt\new-soix.ini").

2. Run Appender module ("C:\SOIX\Soix_Report_System\Programs\Web_Reports\APPENDER.mdb"). After it finished, all new records will be added to SOIX Report Master Database ("C:\SOIX\Soix_Report_System\Data\soix.mdb") – "MDBFile" parameter in the "new-soix.ini" file ("soix.mdb" file).

3. Modify "report.ini" ("C:\SOIX\Soix_Report_System\INI\report.ini") file to customize the periods and the type of reports to be generated.

4. Run "Data_Calculator.exe". Wait when it finishes.

5. Run "Chart_Generator.exe". Wait when it finishes.

6. Run "Executive_Table.exe". Wait when it finishes.

7. Run "DataTable_Creator.exe". Wait when it finishes.

8. Run "ProcDistrib_Creator.exe". Wait when it finishes.

9. Backup current reports (**"centers"** folder) – rename **"centers"** folder to "OLD".

10. Rename the folder defined by the parameter "NewReportsInternetDirectory" to the **"centers"** folder.

11. Now you can delete the "OLD" folder or you can use it to check the new reports by comparing the new reports with old ones.

How to generate reports not for all centers

1. Edit "sites.lst" file in the "lst" folder – delete all center that do not need reports. DO NOT delete first string where "all" center is defined;
2. Execute all steps described in the "How to generate reports" paragraph;
3. Copy file `Full_List_Sites.lst` from "lst/template" folder over "sites.lst" file – this step is required to be sure that reports for all centers will be generated in the future.

How to generate sample reports

1. Copy "Soix-Sample.mdb" ("C:\SOIX\Report_DataBases\Soix-Sample██-12-16.mdb") as "Soix.mdb" ("C:\SOIX\Soix_Report_System\Data\soix.mdb")
2. Modify "NewReportsInternetDirectory" parameter in "new-soix.ini" file to be sure it points to the folder dedicated for sample reports.
3. Modify "report.ini" file to customize the periods and the type of reports to be generated. Records of current version of "Soix-Sample.mdb" are dated between August ██ and May ██ so for sample reports parameters in "report.ini" files should be the following:

```
CalculationDate = 6/1/██
FoundationDate = 8/1/██
QuarterStart = 4
QuarterYearStart = ██
QuarterEnd = 1
QuarterYearEnd = ██
MonthStart = 8
MonthYearStart = ██
MonthEnd = 5
MonthYearEnd = ██
CumulativeMonthStart = 8
CumulativeYearStart = ██
CumulativeMonthEnd = 5
CumulativeYearEnd = ██
```

4. Copy "Sample-Sites.lst" to "Sites.lst"
5. Run "Data_Calculator.exe". Wait when it finishes.
6. Run "Chart_Generator.exe". Wait when it finishes.
7. Run "Executive_Table.exe"
8. Run "DataTable_Creator.exe"
9. Run "ProcDistrib_Creator.exe"
10. In "Soix-Sample.mdb", the sample center has USERCODE = "SMP" so sample reports will be created in SMP folder under folder defined by "NewReportsInternetDirectory" parameter in "new-soix.ini" file.
11. Copy the contents of SMP folder to the folder that is designated for the sample reports and is accessible through the SOIX public web-site.

How to add new center

1. Assign a username and a usercode to the center;
2. Add this information plus the full name of the center to the "Full_List_Sites.lst" file (currently it is "C:\SOIX\Soix_Report_System\LST\Templates\Full_List_Sites.lst");
3. Copy "Full_List_Sites.lst" to "Sites.lst" file ("C:\SOIX\Soix_Report_System\LST\sites.lst");
4. Run "New_Center_Prepare" program ("C:\SOIX\General_Utils\New_Center_Prepare.exe");
5. Add a link to the home page of the center in one of the member homepages (C:\SOIX\WebSites\SOIX\genrep\rep1.shtml, rep2.shtml, rep3.shtml or rep4.shtml – each file represents a set of states).

How to customize centers pictures

1. Convert the center's picture to GIF or JPG graphic format;
2. Rename this picture to "Usercode.(GIF or JPG)" (for example, aaz.gif, aba.jpg);
3. Put the picture in the "Img\centers" subfolder of the folder defined by the parameter "TemplateDirectory" in the "new-soix.ini" file (currently it is "C:\SOIX\Soix_Report_System\Template\Img\centers");
4. Next time when new reports will be generated this change will take effect. To customize the centers picture before the next report generation the following steps should be done:

   a) Make a copy of the picture in the center's directory;
   b) Manually edit the center's main home page (index.html file) to change the link from the default picture (currently it is cherries) to their custom picture. Next time when new reports will be generated all these manual changes will be automatically overwritten, so there is no need to undo these manual changed later.

How to modify the list of CPT codes and procedures

CPT codes and procedures that are supported by the SOIX report system are located in the "ProcConv.lst" file ("C:\SOIX\Soix_Report_System\LST\ProcConv.lst"). So this is the only file that should be modified when the list of CPT codes/procedures is modified.

Let us consider different situations:
1.   Names of some of the procedures are changed — just change these names in the "ProcConv.lst". No new strings are added in this case;
2.   New CPT codes are added or existing CPT codes are merged (no existing codes were deleted) — add new CPT codes in the file "ProcConv.lst". If some of the CPT codes were merged than do not delete original codes although they are not used by centers anymore — just add new codes that were created after these merges. For example, there were codes 10001 and 10003 and after the merge new code 10005 were created. Codes 10001 and 10003 will not be used by centers anymore (10005 will be used instead) but you should keep these codes (10001 and 10003).
3.   If some of the codes were eliminated completely (not merged) or SOIX stopped to support them — just delete the strings where these codes are described.

How to add a corporate member

1. Assign a username and a usercode to the corporate member;
2. Add this corporate member to the "Corporate_Members.lst" file (see the description of this file in the "The structure of the report system" section, in the "Corporate_Members.lst" subsection);
3. Run "New_Center_Prepare" program (currently it is C:\SOIX\General_Utils\New_Center_Prepare.exe).

Appendix

The Appendix section of this manual contains listings of configuration files used by SOIX report system. These listings are the last versions as August 1, ▇▇▇.

Current version of `report.ini` *file*

```
;Everything that is located after ";" is comments


[Run options]
CalculationDate =        ;1/30/▇▇▇     ;Date that will be used as creation date in
charts and tables
                                       ;If there is no date then current date is used

MinNumberOfCases =20                   ;Minimal number of cases that allows to generate
reports for the procedure group
Confidence      =1.7                   ;Coefficient before sigma to calculate tolerable
limits

FoundationDate  =1/1/▇▇▇

QuarterlyReports =yes         ;Yes or No
QuarterStart     =1           ;1,2,3 or 4
QuarterYearStart =▇▇▇         ;format is yyyy
QuarterEnd       =2           ;1,2,3 or 4
QuarterYearEnd   =▇▇▇         ;format is yyyy

MonthlyReports   =yes          ;Yes or No
MonthStart       =1           ;1 to 12
MonthYearStart   =▇▇▇         ;format is yyyy
MonthEnd         =6           ;1 to 12
MonthYearEnd     =▇▇▇         ;format is yyyy

CumulativeMonthlyReports =yes
CumulativeMonthStart     =1
CumulativeYearStart      =▇▇▇
CumulativeMonthEnd       =6
CumulativeYearEnd        =▇▇▇


;-----parameters below this line are not supportes at this moment
RunMode          =Auto        ;Auto or Manual

CleanedDBF       =no          ;Yes or No

StandardReport   =no          ;Yes or No
StartDate        =1/1/▇▇▇
EndDate          =12/31/▇▇▇
```

Current version of `Executive_Table.1st` **file**

```
ind1*Nummer1*TotMR*Perioperative Compli-<br>cations*min*/genrep/ind1.htm
ind2*Nummer2*TotMR*Delayed in Discharge*min*/genrep/ind2.htm
ind3*Nummer3*TotMR*Returns to Surgery*min*/genrep/ind3.htm
ind4*Nummer4*TotMR*Admits to Hospital*min*/genrep/ind4.htm
ind5*Nummer5*Denom5*Pain Episodes Not Relieved<br>*min*/genrep/ind5.htm

IND6*Nummer6*TotPI*Care Not Needed After<br> Discharge*max*/genrep/ind6.htm
IND7*Nummer7*Denom7*Pain Controlled After<br> Discharge*max*/genrep/ind7.htm
IND8*Nummer8*TotPI*Satisfied Patients*max*/genrep/ind8.htm
IND9*Nummer9*TotPI*Effective Discharge <br>Instructions*max*/genrep/ind9.htm
IND10*Nummer10*TotPI*Patients Prepared for <br>Self-Care*max*/genrep/ind10.htm
```

```
---PATIENT DISPOSITION*TotByProc
Patient_Dispos_Normal*Normal
Patient_Dispos_RetainedMore3Hrs*Retained >3 hrs
Patient_Dispos_Hospital*Hospital
Patient_Dispos_Reoperated*Reoperated


---ANESTHESIA*TotByProc
TotEpi*Epidural
TotGen*General
TotSpi*Spinal
TotMAC*MAC
TotBlock*Block
TotTopical*Topical
TotLoc*Local
TotIVC*IV-CON SED
TotOther*Other
TotNone*None


---PAIN AND COMPLICATIONS*
Pain_Complic_NoPain-NoComplic*No Pain, No<br>Complications
Pain_Complic_Pain*Pain
Pain_Complic_Nausea*Nausea
Pain_Complic_Vomiting*Vomiting
Pain_Complic_InabilityToVoid*Inability To Void
Pain_Complic_Bleeding*Bleeding
Pain_Complic_InstabVitalSigns*Instability Of<br>Vital Signs
Pain_Complic_LevelOfConscChanges*Level Of Conscious-<br>ness Changes
Pain_Complic_RespirProblems*Respiratory<br>Problems


---PAIN CONTROL METHODS*
Pain_Control_Meth_PainContrMethExplOnDischarge*Pain Control<br>Methods Explained<br>on
Discharge
Pain_Control_Meth_PrescrGivenOnDischarge*Prescription<br>Given On Discharge
Pain_Control_Meth_PainVerb*Pain Verbalized
Pain_Control_Meth_MedOrdered*Medication<br>Ordered<br>(Who Had Pain)
Pain_Control_Meth_MedAdmin*Medication<br>Administered<br>(Who Had Pain)
Pain_Control_Meth_MedAdminAndRefused*Medication<br>Administered<br>And Refused<br>(Who
Had Pain)
Pain_Control_Meth_PainRelieved*Pain Relieved<br>(Who Had Pain)


---AFTER LEAVING THE SURGERY CENTER*
After_Leave_Surgery_Problems_Might_Have*Knew What Problrms<br>Might Have
After_Leave_Surgery_Who_Call*Knew Who To Call
After_Leave_Surgery_Meds_To_Use*Knew What<br>Medicines to Use
After_Leave_Surgery_Had_Appointment*Had an Appointment
After_Leave_Surgery_Had_All_Info*Had All Information


---POSTOPERATIVE PATIENT INTERVIEW:<br>COMPLICATIONS THAT REQUIRED MEDICAL INTERVENTION*
Postop_Pat_Int_Complic_AnyProblem*Any Problem
Postop_Pat_Int_Complic_Nausea*Nausea
Postop_Pat_Int_Complic_Vomiting*Vomiting
Postop_Pat_Int_Complic_Fever*Fever
Postop_Pat_Int_Complic_ProblemUrine*Problem Urinating
Postop_Pat_Int_Complic_Bleeding*Bleeding
Postop_Pat_Int_Complic_SignsOfInf*Signs Of Infection


---PAIN MANAGEMENT AT HOME*
Pain_Manag_Home_PostopPainAtHome*Postop Pain<br>at Home
Pain_Manag_Home_PostopInstrContrPain*Postop Instructed<br>to Control Pain<br>at Home
Pain_Manag_Home_ComplWithInstr*Complied with<br>Instructions


---PAIN RELIEF AT HOME FOR PATIENTS WHO HAD PAIN*TotByProc
Pain_Relief_Home_Completely*Completely
Pain_Relief_Home_Greatly*Greatly
Pain_Relief_Home_Somewhat*Somewhat
Pain_Relief_Home_NotRelieved*Not Relieved


---PERCEIVED QUALITY IN REGISTRATION AND ADMISSION PROCESS*TotByProc
Perceived_Quality_Reg_And_Admis_Excellent*Excellent
Perceived_Quality_Reg_And_Admis_Good*Good
```

```
Perceived_Quality_Reg_A    dmis_Fair*Fair
Perceived_Quality_Reg_An  Admis_Poor*Poor
Perceived_Quality_Reg_And_Admis_N-A*N/A

---PERCEIVED QUALITY AT PREADMISSION TESTING*TotByProc
Perceived_Quality_Preadmis_Excellent*Excellent
Perceived_Quality_Preadmis_Good*Good
Perceived_Quality_Preadmis_Fair*Fair
Perceived_Quality_Preadmis_Poor*Poor
Perceived_Quality_Preadmis_N-A*N/A

---PERCEIVED QUALITY IN RECOVERY STAGE IN THE CENTER*TotByProc
Perceived_Quality_Rec_Stage_Excellent*Excellent
Perceived_Quality_Rec_Stage_Good*Good
Perceived_Quality_Rec_Stage_Fair*Fair
Perceived_Quality_Rec_Stage_Poor*Poor
Perceived_Quality_Rec_Stage_N-A*N/A
```

```
;General Indicators
---ind*ind2*General Indicators*%Average% Records: %TotMRAllSites%, %You%:
%TotMRThisSite%. %Average% Interviews: %TotPIAllSites%, %You%: %TotPIThisSite%.
ind1*Nummer1*TotMR*ind1
ind2*Nummer2*TotMR*ind2
ind3*Nummer3*TotMR*ind3
ind4*Nummer4*TotMR*ind4
ind5*Nummer5*Denom5*ind5^^
IND6*Nummer6*TotPI*IND6
IND7*Nummer7*Denom7*IND7^^
IND8*Nummer8*TotPI*IND8
IND9*Nummer9*TotPI*IND9
IND10*Nummer10*TotPI*IND10


;ind1 by payor
---payor*payor2*Complications by Payor*%Average% Average Complication Rate:
%Ind1AllSites%%. %You%: %Ind1ThisSite%%.
Care_Ind1*Care*TotCare*Medicare
Aid_Ind1*Aid*TotAid*Medicaid
Com_Ind1*Com*TotCom*Non-Capitated
Cap_Ind1*Cap*TotCap*Capitated
Uni_Ind1*Uni*TotUni*Uninsured
Wor_Ind1*Wor*TotWor*Workmens Comp
Oth_Ind1*Oth*TotOth*Other


;ind1 by anesthesia
---anest*anest2*Complications by Anesthesia*%Average% Average Complication Rate:
%Ind1AllSites%%. %You%: %Ind1ThisSite%%.
EPI_Ind1*EPI*TotEPI*Epidural
GEN_Ind1*GEN*TotGEN*General
Spi_Ind1*Spi*TotSpi*Spinal
MAC_Ind1*MAC*TotMAC*MAC
Block_Ind1*Block*TotBlock*Block
Topical_Ind1*Topical*TotTopical*Topical
Loc_Ind1*Loc*TotLoc*Local
IVC_Ind1*IVC*TotIVC*IV-CON SED
Other_Ind1*Other*TotOther*Other
None_Ind1*None*TotNone*None


;Surgery Time
---*surgtime2*Surgery Time*Surgery Time (min)||%Average% average:
%Surgtime_AvgAllSites% min. %You%: %Surgtime_AvgThisSite% min.
SURGTIME-0-30V*SURGTIME-0-30*SURGTIME_TOT*0-29
SURGTIME-30-60V*SURGTIME-30-60*SURGTIME_TOT*30-59
SURGTIME-60-90V*SURGTIME-60-90*SURGTIME_TOT*60-89
SURGTIME-90-120V*SURGTIME-90-120*SURGTIME_TOT*90-119
SURGTIME-120-150V*SURGTIME-120-150*SURGTIME_TOT*120-149
SURGTIME-150-180V*SURGTIME-150-180*SURGTIME_TOT*150-179
SURGTIME-180-210V*SURGTIME-180-210*SURGTIME_TOT*180-209
SURGTIME-210-240V*SURGTIME-210-240*SURGTIME_TOT*210-239
SURGTIME-240+V*SURGTIME-240+*SURGTIME_TOT*240+


;Recovery Time
---*recovtime2*Recovery Time*Recovery Time (min)||%Average% average:
%Rectime_AvgAllSites% min. %You%: %Rectime_AvgThisSite% min.
RECTIME-0-30V*RECTIME-0-30*RECTIME_TOT*0-29
RECTIME-30-60V*RECTIME-30-60*RECTIME_TOT*30-59
RECTIME-60-90V*RECTIME-60-90*RECTIME_TOT*60-89
RECTIME-90-120V*RECTIME-90-120*RECTIME_TOT*90-119
RECTIME-120-150V*RECTIME-120-150*RECTIME_TOT*120-149
RECTIME-150-180V*RECTIME-150-180*RECTIME_TOT*150-179
RECTIME-180-210V*RECTIME-180-210*RECTIME_TOT*180-209
RECTIME-210-240V*RECTIME-210-240*RECTIME_TOT*210-239
RECTIME-240+V*RECTIME-240+*RECTIME_TOT*240+


;Age Distribution
---*Age_Distribution2*Age Distribution*Age (years)||%Average% average:
%Age_Distrib_AvgAllSites% yrs. %You%: %Age_Distrib_AvgThisSite% yrs.
Age_Distrib_0-14V*Age_Distrib_0-14*Age_Distrib_Tot*0-14
Age_Distrib_15-24V*Age_Distrib_15-24*Age_Distrib_Tot*15-24
```

```
Age_Distrib_25-3  ge_Distrib_25-34*Age_Distrib_Tot*   4
Age_Distrib_35-44V*Age_Distrib_35-44*Age_Distrib_Tot*35-44
Age_Distrib_45-54V*Age_Distrib_45-54*Age_Distrib_Tot*45-54
Age_Distrib_55-64V*Age_Distrib_55-64*Age_Distrib_Tot*55-64
Age_Distrib_65-74V*Age_Distrib_65-74*Age_Distrib_Tot*65-74
Age_Distrib_75-84V*Age_Distrib_75-84*Age_Distrib_Tot*75-84
Age_Distrib_85+V*Age_Distrib_85+*Age_Distrib_Tot*85+
```

```
ReportStart            =    Report Start
ReportEnd              =    Report End
KillTreeMsg            =    Tree was overwritten or deleted
KillFileMsg            =    File was overwritten or deleted
QuarterReportStart     =    Quarter Report is Starting
QuarterReportEnd       =    Quarter Report is Completed
MonthReportStart       =    Monthly Report is Starting
MonthReportEnd         =    Monthly Report is Completed
MonthCumulReportStart  =    Cumul Monthly Report is Starting
MonthCumulReportEnd    =    Cumul Monthly Report is Completed
StandardReportStart    =    Standard Report is Starting
StandardReportEnd      =    Standard Report is Completed
```

Current version of `Comparison_table.lst` *file*

```
---*
TotMR*                                       *                    Number of Patients*
---Time (Minutes)*
SurgTime_Avg*                                *                    Time For Procedure*
RecTime_Avg*                                 *                    Time For Recovery*
IntTime_Avg*                                 *                    Time For Patient Interview*

---Problems Before Leaving Surgery Center*
Patient_Dispos_Normal*                       TotMR*               Percent Normal Discharge*
Pain_Complic_NoPain-NoComplic*               TotMR*               Percent without Problems*
Pain_Control_Meth_PainVerb*                  TotMR*               Percent with Post Operative Pain*
Pain_Control_Meth_MedOrdered*                Pain_Control_Meth_PainVerb*    &nbsp&nbsp Percent Medications
Ordered*
Pain_Control_Meth_PainRelieved*              Pain_Control_Meth_PainVerb*    &nbsp&nbsp Percent Pain Relieved*
Pain_Control_Meth_PrescrGivenOnDischarge* TotMR*                 Percent Pain Prescription Given*
Pain_Control_Meth_PainContrMethExplOnDischarge*TotMR*            Percent Pain Control Methods
Explained*

---After Leaving the Surgery Center*
After_Leave_Surgery_Problems_Might_Have*  TotPI*                 Percent That Knew What Problems They
Might Have*
After_Leave_Surgery_Who_Call*                TotPI*               Percent Knew Who to Call*
After_Leave_Surgery_Meds_To_Use*             TotPI*               Percent Knew Medications to Control
Pain*
After_Leave_Surgery_Had_Appointment*         TotPI*               Percent with Post Operative
Appointment*
After_Leave_Surgery_Had_All_Info*            TotPI*               Percent Who Had Self Care Info*

---Problems at Home*
Postop_Pat_Int_Complic_AnyProblem*           TotPI*               Percent with Problem Related to
Procedure*
Postop_Pat_Int_Complic_Nausea*               TotPI*               &nbsp&nbsp Nausea*
Postop_Pat_Int_Complic_Vomiting*             TotPI*               &nbsp&nbsp Vomiting*
Postop_Pat_Int_Complic_Fever*                TotPI*               &nbsp&nbsp Fever*
Postop_Pat_Int_Complic_ProblemUrine*         TotPI*               &nbsp&nbsp Difficulty Urinating*
Postop_Pat_Int_Complic_Bleeding*             TotPI*               &nbsp&nbsp Bleeding*
Postop_Pat_Int_Complic_SignsOfInf*           TotPI*               &nbsp&nbsp Signs of Infection*
Pain_Manag_Home_PostopPainAtHome*            TotPI*               Percent Bothered by Pain*
Pain_Manag_Home_PostopInstrContrPain*        Pain_Manag_Home_PostopPainAtHome*   &nbsp&nbsp Percent with Instruction
about Pain*
Pain_Manag_Home_ComplWithInstr*              Pain_Manag_Home_PostopPainAtHome*   &nbsp&nbsp Percent Following
Instructions*
Pain_Relief_Home_Completely*                 Pain_Manag_Home_PostopPainAtHome*   &nbsp&nbsp Percent Completely
Relieved*

---Perceived Quality of Care*
Nummer8*                                     TotPI*               Percent Excellent Quality*
Perceived_Quality_Reg_And_Admis_Excellent*TotPi*                 Percent Excellent Registration and
Admission*
Perceived_Quality_Preadmis_Excellent*        TotPI*               Percent Excellent Preadmission
Testing*
Perceived_Quality_Rec_Stage_Excellent*       TotPI*               Percent Excellent Recovery Stage*
```

```
29888*  Arthroscopic ACL Repair
67916*  Blephroplasty
67921*  Blephroplasty
19325*  Breast augmentation
19120*  Breast Biopsy
19318*  Breast reduction
31622*  Bronchoscopy
31625*  Bronchoscopy
28290*  Bunionectomy
28292*  Bunionectomy
28293*  Bunionectomy
28294*  Bunionectomy
28296*  Bunionectomy
28297*  Bunionectomy
28298*  Bunionectomy
28299*  Bunionectomy
29848*  Carpal Tunnel
64721*  Carpal Tunnel
66830*  Cataract removal
66840*  Cataract removal
66850*  Cataract removal
66852*  Cataract removal
66920*  Cataract removal
66930*  Cataract removal
66940*  Cataract removal
66983*  Cataract removal
66984*  Cataract removal
45378*  Colonoscopy, diagnostic
45380*  Colonoscopy with biopsy
45384*  Colonoscopy with biopsy
45385*  Colonoscopy with biopsy
52000*  Cystoscopy
52005*  Cystoscopy
52007*  Cystoscopy
52204*  Cystoscopy
52281*  Cystoscopy
58120*  D&C/Hysteroscopy
58558*  D&C/Hysteroscopy
43235*  EGD
43239*  EGD with biopsy
43248*  EGD with dilation
43249*  EGD with dilation
30520*  ENT- Septoplasty
31255*  ENT Sinus endoscopy
42820*  ENT- T&A < 12
42826*  ENT- Tonsillectomy > 12
69436*  ENT- Tubes
69631*  ENT- Tympanoplasty
49320*  GYN laparoscopy
58660*  GYN laparoscopy
58670*  GYN laparoscopy
58671*  GYN laparoscopy
49505*  Hernia repair
49585*  Hernia repair
29870*  Knee Arthroscopy
29877*  Knee Arthroscopy
29881*  Knee Arthroscopy
29882*  Knee Arthroscopy
29884*  Knee Arthroscopy
47562*  Laparoscopic cholecystectomy
47564*  Laparoscopic cholecystectomy
19125*  Needle localization breast biopsy
62310*  Pain management -epidural
62311*  Pain management -epidural
64510*  Pain management -epidural
20550*  Pain management -injection
55700*  Prostate biopsy
30400*  Rhinoplasty
15828*  Rhytidectomy
23412*  Shoulder Arthroplasty (open)
```

```
23450*  Shoulder ⬤roplasty (open)
23455*  Shoulder ⬤roplasty (open)
29815*  Shoulder Arthroscopy, dx or tx
29819*  Shoulder Arthroscopy, dx or tx
29820*  Shoulder Arthroscopy, dx or tx
29821*  Shoulder Arthroscopy, dx or tx
29822*  Shoulder Arthroscopy, dx or tx
29823*  Shoulder Arthroscopy, dx or tx
29825*  Shoulder Arthroscopy, dx or tx
29826*  Shoulder Arthroscopy, dx or tx


56340*  Laparoscopic cholecystectomy
56342*  Laparoscopic cholecystectomy
56300*  GYN laparoscopy
56302*  GYN laparoscopy
56304*  GYN laparoscopy
56351*  D&C/Hysteroscopy
62275*  Pain management -epidural
62278*  Pain management -epidural
62289*  Pain management -epidural
62298*  Pain management -epidural
```

```
;"ALL" MUST BE FIRST

ALL*    All Centers*
aaa*    Central Indiana Orthopedic Surgery Center*          daniel
aab*    The Laser and Surgery Center*                       helen
aac*    Genesis Surgery Center, LLC*                        debbie
aad*    Valley Ambulatory Surgery Center*                   jones
aae*    Roper West Ashley Surgery Center*                   shannon
aaf*    UPMC Monroeville Ambulatory Surgery*                jennifer
aag*    Specialists Ambulatory Surgery Center*              johnson
aah*    Elliot 1-DAY Surgery Center*                        steve
aai*    Endoscopy Center of Oakridge, LLC*                  kenny
aak*    Aestique Medical Center*                            nancy
aal*    The Clinic Surgery and Eye Center, LLP*             matthew
aam*    Sullivan Centre For Plastic & Reconstructive Surgery*  nelson
aan*    Abington Surgical Center*                           allen
aap*    Roseburg Surgicenter, LTD*                          tinker
aaq*    Proctology Associates*                              lime
aar*    University Suburban Health Center*                  peter
aas*    Lincoln Surgery Center*                             karen
aat*    Gastroenterology Associates, Inc. & The Endoscopy Center*  elaine
aau*    Sandusky Plastic Surgery*                           tom
aav*    Decatur Ambulatory Surgery Center*                  brian
aaw*    The Bay Area Surgery Center*                        jim
aax*    Center for Special Surgery*                         carry
aay*    The Kirklin Clinic Ambulatory Surgery Center*       terry
aaz*    Jefferson Memorial Surgery Center*                  tonya
aba*    Ohio Surgery Center, LTD*                           gene
abb*    Helix Health Surgi Center at Pasadena*              paper
abc*    EYE HEALTH ASSOCIATES OF WNY, PC*                   weight
abd*    Grand Island Surgery Center*                        program
abe*    Zanesville Surgery Center*                          phone
abf*    WILLIAM E BECKER MD PA ASC*                         doctor
abg*    Maryville Surgical Center*                          desk
abh*    Central Utah Surgical Center*                       billy
abi*    Mt. Ogden Surgical Center*                          rebecca
abj*    Davis Surgical Center*                              ben
abk*    Great Basin Surgical Center*                        plug
abl*    Minimally Invasive Surgery Center*                  sam
abm*    Plastikos Surgery Center*                           summer
abn*    Endoscopy Center of Pennsylvania*                   pencil
abo*    Fox Valley Orthopaedic Institute*                   apple
abp*    Surgiplex*                                          winter
abq*    Northwest Surgery Center, LLC*                      sand
abr*    Mercy Anderson Ambulatory Surgery*                  fall
abs*    Urology Specialty & Surgery Ctr of SW LA*           speak
abt*    Commonwealth Orthopaedics*                          sing
abu*    Virginia Eye Institute, Inc*                        spring
abv*    Reston Hospital Center*                             trident
abw*    GI Endoscopy Center*                                jacket
abx*    Blake Woods Medical Park Surgery Center*            alan
aby*    Norfolk Surgery Center*                             jenny
abz*    The Cookeville Surgery Center*                      mike
aca*    The Ambulatory Care Center*                         timon
acb*    Southern Surgery Center*                            hammer
acc*    Findlay Surgery Center*                             nail
ace*    Central Plains CL Surgery & Diagnostic*             indian
acf*    Frederick Surgical Center*                          soda
acg*    Surgery Center of Ft. Collins*                      play
ach*    Straith Clinic, PC*                                 rest
aci*    Effingham Ambulatory Surgery Center*                trip
aza*    Flagstaff Outpatient Surgery Center*                decker
lva*    Lakeview Medical Center, Inc.*                      stovall
mfa*    Surgery Center of Southern Oregon, LLC*             diana
msa*    The Microsurgery Center*                            barnes
mva*    Mississippi Valley Surgery Center, LLC*             andrews
qca*    Quad City Ambulatory Surgery Center*                miller
rsa*    Virginia Ambulatory Surgery Center*                 thomas
sba*    Surgicenter of Baltimore*                           cornell
sca*    South Coast Surgery Center, LLC*                    barker
```

spa*   Spring P█ Surgery Center*   █   banks

Current version of `Stage1.lst` *file*

```
;Last Updated: 04/14/▮▮▮▮

DOP*
PAYOR*
DISPOSITIO*
RECTIME*
SURGTIME*
INTTIME*
AGE*

  ;Anesthesia*Anesthesia

;------------------------------------------------
;Miscellaneous (PATINT2)
    ;INTTIME2*IIf(TimeDiff({[START],[ENDTIME]})<0,0,TimeDiff({[START],[ENDTIME]}))
Disp3*IIf(DISPOSITIO="3",True,False)
Disp2*IIf(DISPOSITIO="2",True,False)

;----------------------------------------------------------
;Miscellaneous (MEDREC)
Anesthesia3*Left(Anesthesia,3)
PAYOR3*Left(PAYOR,3)
PV*IIf(pv1="Y",True,False)
PR*IIf(pr1="Y",True,False)
Ind2Threshold*

;----------------------------------------------------------
;General Indicators (PATINT2)
Nummer1_1*IIf(Pain_Complic_Nausea_1 OR Pain_Complic_Vomiting_1 OR Pain_Complic_InabilityToVoid_1 OR
Pain_Complic_Bleeding_1 OR Pain_Complic_InstabVitalSigns_1 OR Pain_Complic_LevelOfConscChanges_1 OR
Pain_Complic_RespirProblems_1,True,False)
Nummer6_1*IIf(Not(IIf(Postop_Pat_Int_Complic_Nausea_1 OR Postop_Pat_Int_Complic_Vomiting_1 OR
Postop_Pat_Int_Complic_Fever_1 OR Postop_Pat_Int_Complic_ProblemUrine_1 OR
Postop_Pat_Int_Complic_Bleeding_1 OR Postop_Pat_Int_Complic_SignsOfInf_1,True,False)) AND
Not(IsNull(PI_IDN)),True,False)
Nummer7_1*IIf((PATINT2.inspain="Y") And Not(Not(folm="Y") and Not(folcom="Y")) And (usem="Y" Or
inscom="Y") And (folm="Y" Or folcom="Y") And (Left(relief,5)="compl") And (phome="Y"),True,False)
Denom7_1*IIf(phome="Y" and Not(Not(folm="Y") and Not(folcom="Y")),True,False)
Nummer8_1*IIf((qregadm="Excellent" OR qregadm="N/A") And (qpreadm="Excellent" OR qpreadm="N/A") And
(qrecov="Excellent" OR qrecov="N/A") AND (NOT (qregadm="N/A" AND qpreadm="N/A" AND
qrecov="N/A")),True,False)
Nummer9_1*IIf(Left(prob,1)="Y" And Left(whocall,1)="Y" And Left(med,1)="Y" And
Left(app,1)="Y",True,False)
Nummer10_1*IIf(Left(inf,1)="Y" And Left(prob,1)="Y" And Left(whocall,1)="Y" And Left(med,1)="Y" And
Left(app,1)="Y",True,False)

;----------------------------------------------------------
;Pain and Complications (MEDREC)
Pain_Complic_Pain_1*IIf(LEFT(PAIN1,1)="Y" OR LEFT(PAIN2,1)="Y" OR LEFT(PAIN3,1)="Y",True,False)
Pain_Complic_Nausea_1*IIf(LEFT(NAUS1,1)="Y" OR LEFT(NAUS2,1)="Y" OR LEFT(NAUS3,1)="Y",True,False)
Pain_Complic_Vomiting_1*IIf(LEFT(VOM1,1)="Y" OR LEFT(VOM2,1)="Y" OR LEFT(VOM3,1)="Y",True,False)
Pain_Complic_InabilityToVoid_1*IIf(LEFT(INVOID1,1)="Y" OR LEFT(INVOID2,1)="Y" OR
LEFT(INVOID3,1)="Y",True,False)
Pain_Complic_Bleeding_1*IIf(LEFT(MEDREC.BLEED1,1)="Y" OR LEFT(MEDREC.BLEED2,1)="Y" OR
LEFT(MEDREC.BLEED3,1)="Y",True,False)
Pain_Complic_InstabVitalSigns_1*IIf(LEFT(IVS1,1)="Y" OR LEFT(IVS2,1)="Y" OR
LEFT(IVS3,1)="Y",True,False)
Pain_Complic_LevelOfConscChanges_1*IIf(LEFT(LOC1,1)="Y" OR LEFT(LOC2,1)="Y" OR
LEFT(LOC3,1)="Y",True,False)
Pain_Complic_RespirProblems_1*IIf(LEFT(RESP1,1)="Y" OR LEFT(RESP2,1)="Y" OR
LEFT(RESP3,1)="Y",True,False)

;----------------------------------------------------------
;Pain Control Methods (MEDREC)
Pain_Control_Meth_PrescrGivenOnDischarge_1*IIf(LEFT(PPG,1)="Y" ,True,False)
Pain_Control_Meth_PainContrMethExplOnDischarge_1*IIf(LEFT(PCME,1)="Y" ,True,False)

Pain_Control_Meth_PainVerb_1*IIf(LEFT(PV1,1)="Y",True,False)
Pain_Control_Meth_MedOrdered_1*IIf(LEFT(MO1,1)="Y",True,False) AND Pain_Control_Meth_PainVerb_1
Pain_Control_Meth_MedAdmin_1*IIf(LEFT(MA1,1)="Y",True,False) AND Pain_Control_Meth_PainVerb_1
Pain_Control_Meth_MedAdminAndRefused_1*IIf(LEFT(MA1,1)="R",True,False) AND
Pain_Control_Meth_PainVerb_1
Pain_Control_Meth_PainRelieved_1*IIf(LEFT(PR1,1)="Y",True,False) AND Pain_Control_Meth_PainVerb_1

;----------------------------------------------------------
;After Leaving the Surgery Center (PATINT2)
After_Leave_Surgery_Problems_Might_Have_1*IIf(Left(Prob,1)="Y",True,False)
After_Leave_Surgery_Who_Call_1*IIf(Left(Whocall,1)="Y",True,False)
After_Leave_Surgery_Meds_To_Use_1*IIf(Left(Med,1)="Y",True,False)
After_Leave_Surgery_Had_Appointment_1*IIf(Left(App,1)="Y",True,False)
After_Leave_Surgery_Had_All_Info_1*IIf(Left(Inf,1)="Y",True,False)

;----------------------------------------------------------
;Postoperative Complications (PATINT2)
Postop_Pat_Int_Complic_Nausea_1*IIf(PATINT2.nausea3="Y" Or PATINT2.nausea4="Y" Or PATINT2.nausea5="Y"
Or PATINT2.nausea6="Y" Or PATINT2.nausea7="Y",True,False)
Postop_Pat_Int_Complic_Vomiting_1*IIf(PATINT2.vomit3="Y" Or PATINT2.vomit4="Y" Or PATINT2.vomit5="Y"
Or PATINT2.vomit6="Y" Or PATINT2.vomit7="Y",True,False)
```

```
Postop_Pat_Int_Compl●●●●ever_1*IIf(PATINT2.fever3="Y" Or PATINT2.fe●●●●"Y" Or PATINT2.fever5="Y" Or
PATINT2.fever6="Y" O●●●TINT2.fever7="Y",True,False)
Postop_Pat_Int_Complic_ProblemUrine_1*IIf(PATINT2.urine3="Y" Or PATINT2.urine4="Y" Or
PATINT2.urine5="Y" Or PATINT2.urine6="Y" Or PATINT2.urine7="Y",True,False)
Postop_Pat_Int_Complic_Bleeding_1*IIf(PATINT2.bleed3="Y" Or PATINT2.bleed4="Y" Or PATINT2.bleed5="Y"
Or PATINT2.bleed6="Y" Or PATINT2.bleed7="Y",True,False)
Postop_Pat_Int_Complic_SignsOfInf_1*IIf(PATINT2.infec3="Y" Or PATINT2.infec4="Y" Or PATINT2.infec5="Y"
Or PATINT2.infec6="Y" Or PATINT2.infec7="Y",True,False)


;-----------------------------------------------
;Postoperative Complications (PATINT2) -- Old Version
;Postop_Pat_Int_Complic_Nausea_1*IIf(Left(Nausea1,1)="Y",True,False)
;Postop_Pat_Int_Complic_Vomiting_1*IIf(Left(Vomit1,1)="Y",True,False)
;Postop_Pat_Int_Complic_Fever_1*IIf(Left(Fever1,1)="Y",True,False)
;Postop_Pat_Int_Complic_ProblemUrine_1*IIf(Left(Urine1,1)="Y",True,False)
;Postop_Pat_Int_Complic_Bleeding_1*IIf(Left(Patint2.Bleed1,1)="Y",True,False)
;Postop_Pat_Int_Complic_SignsOfInf_1*IIf(Left(Infec1,1)="Y",True,False)


;-----------------------------------------------
;Pain Management at Home (PATINT2)
Pain_Manag_Home_PostopPainAtHome_1*IIf(Left(Phome,1)="Y",True,False)
Pain_Manag_Home_PostopInstrContrPain_1*IIf(Left(Phome,1)="Y" AND Left(Inspain,1)="Y",True,False)
Pain_Manag_Home_ComplWithInstr_1*IIf(Left(Phome,1)="Y" AND (Left(Folm,1)="Y" OR Left(Folcom,1)="Y")
And IsNull(Foloth),True,False)


;-----------------------------------------------
;Pain Relief at Home for Patients Who Had Pain (PATINT2)
Pain_Relief_Home_Completely_1*IIf(Left(Phome,1)="Y" AND Left(Relief,3)="Com",True,False)
Pain_Relief_Home_Greatly_1*IIf(Left(Phome,1)="Y" AND Left(Relief,3)="Gre",True,False)
Pain_Relief_Home_Somewhat_1*IIf(Left(Phome,1)="Y" AND Left(Relief,3)="Som",True,False)
Pain_Relief_Home_NotRelieved_1*IIf(Left(Phome,1)="Y" AND Left(Relief,3)="Not",True,False)


;-----------------------------------------------
;Perceived Quality in Registr and Admission Process (PATINT2)
Perceived_Quality_Reg_And_Admis_Excellent_1*IIf(Left(Qregadm,3)="Exc",True,False)
Perceived_Quality_Reg_And_Admis_Good_1*IIf(Left(Qregadm,3)="Goo",True,False)
Perceived_Quality_Reg_And_Admis_Fair_1*IIf(Left(Qregadm,3)="Fai",True,False)
Perceived_Quality_Reg_And_Admis_Poor_1*IIf(Left(Qregadm,3)="Poo",True,False)
Perceived_Quality_Reg_And_Admis_N-A_1*IIf(Left(Qregadm,3)="N/A",True,False)


;-----------------------------------------------
;Perceived Quality at Preadmission Testing (PATINT2)
Perceived_Quality_Preadmis_Excellent_1*IIf(Left(Qpreadm,3)="Exc",True,False)
Perceived_Quality_Preadmis_Good_1*IIf(Left(Qpreadm,3)="Goo",True,False)
Perceived_Quality_Preadmis_Fair_1*IIf(Left(Qpreadm,3)="Fai",True,False)
Perceived_Quality_Preadmis_Poor_1*IIf(Left(Qpreadm,3)="Poo",True,False)
Perceived_Quality_Preadmis_N-A_1*IIf(Left(Qpreadm,3)="N/A",True,False)


;-----------------------------------------------
;Perceived Quality in Recovery stage in the Center (PATINT2)
Perceived_Quality_Rec_Stage_Excellent_1*IIf(Left(Qrecov,3)="Exc",True,False)
Perceived_Quality_Rec_Stage_Good_1*IIf(Left(Qrecov,3)="Goo",True,False)
Perceived_Quality_Rec_Stage_Fair_1*IIf(Left(Qrecov,3)="Fai",True,False)
Perceived_Quality_Rec_Stage_Poor_1*IIf(Left(Qrecov,3)="Poo",True,False)
Perceived_Quality_Rec_Stage_N-A_1*IIf(Left(Qrecov,3)="N/A",True,False)


;-----------------------------------------------
;Age Distribution (MEDREC)
Age_Distrib_0-14_1*IIf(AGE>0 AND AGE<15,True,False)
Age_Distrib_15-24_1*IIf(AGE>=15 AND AGE<25,True,False)
Age_Distrib_25-34_1*IIf(AGE>=25 AND AGE<35,True,False)
Age_Distrib_35-44_1*IIf(AGE>=35 AND AGE<45,True,False)
Age_Distrib_45-54_1*IIf(AGE>=45 AND AGE<55,True,False)
Age_Distrib_55-64_1*IIf(AGE>=55 AND AGE<65,True,False)
Age_Distrib_65-74_1*IIf(AGE>=65 AND AGE<75,True,False)
Age_Distrib_75-84_1*IIf(AGE>=75 AND AGE<85,True,False)
Age_Distrib_85+_1*IIf(AGE>=85 AND AGE<=120,True,False)
Age_Distrib_Tot_1*IIf(AGE>0 AND AGE<=120,True,False)


;-----------------------------------------------
;Recovery Time Distrubution (MEDREC)
RECTIME-0-30_1*IIf(RECTIME>0 and RECTIME<30,True,False)
RECTIME-30-60_1*IIf(RECTIME>=30 and RECTIME<60,True,False)
RECTIME-60-90_1*IIf(RECTIME>=60 and RECTIME<90,True,False)
RECTIME-90-120_1*IIf(RECTIME>=90 and RECTIME<120,True,False)
RECTIME-120-150_1*IIf(RECTIME>=120 and RECTIME<150,True,False)
RECTIME-150-180_1*IIf(RECTIME>=150 and RECTIME<180,True,False)
RECTIME-180-210_1*IIf(RECTIME>=180 and RECTIME<210,True,False)
RECTIME-210-240_1*IIf(RECTIME>=210 and RECTIME<240,True,False)
RECTIME-240+_1*IIf(RECTIME>=240 ,True,False)
RECTIME_TOT_1*IIf(RECTIME>0 ,True,False)


;-----------------------------------------------
;Surgery Time Distribution (MEDREC)
SURGTIME-0-30_1*IIf(SURGTIME>0 and SURGTIME<30,True,False)
SURGTIME-30-60_1*IIf(SURGTIME>=30 and SURGTIME<60,True,False)
SURGTIME-60-90_1*IIf(SURGTIME>=60 and SURGTIME<90,True,False)
SURGTIME-90-120_1*IIf(SURGTIME>=90 and SURGTIME<120,True,False)
SURGTIME-120-150_1*IIf(SURGTIME>=120 and SURGTIME<150,True,False)
SURGTIME-150-180_1*IIf(SURGTIME>=150 and SURGTIME<180,True,False)
SURGTIME-180-210_1*IIf(SURGTIME>=180 and SURGTIME<210,True,False)
SURGTIME-210-240_1*IIf(SURGTIME>=210 and SURGTIME<240,True,False)
SURGTIME-240+_1*IIf(SURGTIME>=240 ,True,False)
SURGTIME_TOT_1*IIf(SURGTIME>0 ,True,False)
```

```
;-------------------------------------------------------
;Header
TotMR*           Long*        Count(Site)**
TotPI*           Long*        Count(PI_IDN)**

;-------------------------------------------------------
;General Indicators (MEDREC)
Nummer1*         Long*        Count(IIf(Nummer1_1,True,Null))**
Nummer2*         Long*        Count(IIf(RECTIME>Ind2Threshold,True,Null))**
Nummer3*         Long*        Count(IIf(Disp3,True,Null))**
Nummer4*         Long*        Count(IIf(Disp2,True,Null))**
Nummer5*         Long*        Count(IIf(PV And Not(PR),True,Null))**
Denom5*          Long*        Count(IIf(PV,True,Null))**

;-------------------------------------------------------
;General Indicators (PATINT2)
Nummer6*         Long*        Count(IIf(Nummer6_1,True,Null))**
Nummer7*         Long*        Count(IIf(Nummer7_1,True,Null))**
Denom7*          Long*        Count(IIf(Denom7_1,True,Null))**
Nummer8*         Long*        Count(IIf(Nummer8_1,True,Null))**
Nummer9*         Long*        Count(IIf(Nummer9_1,True,Null))**
Nummer10*        Long*        Count(IIf(Nummer10_1,True,Null))**

;-------------------------------------------------------
;Complications by Payor (MEDREC)
TotCare*         Long*        Count(IIf(PAYOR="Medicare",True,Null))**
Care*            Long*        Count(IIf(PAYOR="Medicare" AND Nummer1_1,True,Null))**
TotAid*          Long*        Count(IIf(PAYOR="Medicaid",True,Null))**
Aid*             Long*        Count(IIf(PAYOR="Medicaid" AND Nummer1_1,True,Null))**
TotCom*          Long*        Count(IIf(Payor3="Com",True,Null))**
Com*             Long*        Count(IIf(Payor3="Com" AND Nummer1_1,True,Null))**
TotCap*          Long*        Count(IIf(Payor3="Cap",True,Null))**
Cap*             Long*        Count(IIf(Payor3="Cap" AND Nummer1_1,True,Null))**
TotUni*          Long*        Count(IIf(Payor3="Uni",True,Null))**
Uni*             Long*        Count(IIf(Payor3="Uni" AND Nummer1_1,True,Null))**
TotWor*          Long*        Count(IIf(Payor3="Wor",True,Null))**
Wor*             Long*        Count(IIf(Payor3="Wor" AND Nummer1_1,True,Null))**
TotOth*          Long*        Count(IIf(Payor3="Oth",True,Null))**
Oth*             Long*        Count(IIf(Payor3="Oth" AND Nummer1_1,True,Null))**

;-------------------------------------------------------
;Complications by Anesthesia (MEDREC)
TotEpi*          Long*        Count(IIf(Anesthesia3="Epi",True,Null))**
Epi*             Long*        Count(IIf(Anesthesia3="Epi" AND Nummer1_1,True,Null))**
TotGen*          Long*        Count(IIf(Anesthesia3="Gen",True,Null))**
Gen*             Long*        Count(IIf(Anesthesia3="Gen" AND Nummer1_1,True,Null))**
TotSpi*          Long*        Count(IIf(Anesthesia3="Spi",True,Null))**
Spi*             Long*        Count(IIf(Anesthesia3="Spi" AND Nummer1_1,True,Null))**
TotMAC*          Long*        Count(IIf(Anesthesia3="MAC",True,Null))**
MAC*             Long*        Count(IIf(Anesthesia3="MAC" AND Nummer1_1,True,Null))**
TotBlock*        Long*        Count(IIf(Anesthesia3="Blo",True,Null))**
Block*           Long*        Count(IIf(Anesthesia3="Blo" AND Nummer1_1,True,Null))**
TotTopical*      Long*        Count(IIf(Anesthesia3="Top",True,Null))**
Topical*         Long*        Count(IIf(Anesthesia3="Top" AND Nummer1_1,True,Null))**
TotLoc*          Long*        Count(IIf(Anesthesia3="Loc",True,Null))**
Loc*             Long*        Count(IIf(Anesthesia3="Loc" AND Nummer1_1,True,Null))**
TotIVC*          Long*        Count(IIf(Anesthesia3="IV-",True,Null))**
IVC*             Long*        Count(IIf(Anesthesia3="IV-" AND Nummer1_1,True,Null))**
TotOther*        Long*        Count(IIf(Anesthesia3="Oth",True,Null))**
Other*           Long*        Count(IIf(Anesthesia3="Oth" AND Nummer1_1,True,Null))**
TotNone*         Long*        Count(IIf(Anesthesia3="Non",True,Null))**
None*            Long*        Count(IIf(Anesthesia3="Non" AND Nummer1_1,True,Null))**

;-------------------------------------------------------
;Pain Disposition (MEDREC)
Patient_Dispos_RetainedMore3Hrs*    Long*    Count(IIf(DISPOSITIO="1",True,Null))**
Patient_Dispos_Hospital*            Long*    Count(IIf(DISPOSITIO="2",True,Null))**
Patient_Dispos_Reoperated*          Long*    Count(IIf(DISPOSITIO="3",True,Null))**
Patient_Dispos_Normal*              Long*    Count(IIf(DISPOSITIO="4",True,Null))**

;-------------------------------------------------------
;Pain and Complications (MEDREC)
Pain_Complic_NoPain-NoComplic*           Long*      Count(IIf(Pain_Complic_Pain_1 OR Pain_Complic_Nausea_1
OR Pain_Complic_Vomiting_1 OR Pain_Complic_InabilityToVoid_1 OR Pain_Complic_Bleeding_1 OR
Pain_Complic_InstabVitalSigns_1 OR Pain_Complic_LevelOfConscChanges_1 OR
Pain_Complic_RespirProblems_1,Null,True))**
Pain_Complic_Pain*                       Long*      Count(IIf(Pain_Complic_Pain_1,True,Null))**
Pain_Complic_Nausea*                     Long*      Count(IIf(Pain_Complic_Nausea_1,True,Null))**
Pain_Complic_Vomiting*                   Long*      Count(IIf(Pain_Complic_Vomiting_1,True,Null))**
Pain_Complic_InabilityToVoid*            Long*      Count(IIf(Pain_Complic_InabilityToVoid_1,True,Null))**
Pain_Complic_Bleeding*                   Long*      Count(IIf(Pain_Complic_Bleeding_1,True,Null))**
Pain_Complic_InstabVitalSigns*           Long*      Count(IIf(Pain_Complic_InstabVitalSigns_1,True,Null))**
Pain_Complic_LevelOfConscChanges*        Long*
Count(IIf(Pain_Complic_LevelOfConscChanges_1,True,Null))**
Pain_Complic_RespirProblems*             Long*      Count(IIf(Pain_Complic_RespirProblems_1,True,Null))**

;-------------------------------------------------------
;Pain Control Methods (MEDREC)
```

```
Pain_Control_Meth_P       rb*                        Long*
Count(IIf(Pain_Contr     eth_PainVerb_1,True,Null))**
Pain_Control_Meth_MedOrdered*                        Long*
Count(IIf(Pain_Control_Meth_MedOrdered_1,True,Null))**
Pain_Control_Meth_MedAdmin*                          Long*
Count(IIf(Pain_Control_Meth_MedAdmin_1,True,Null))**
Pain_Control_Meth_MedAdminAndRefused*                Long*
Count(IIf(Pain_Control_Meth_MedAdminAndRefused_1,True,Null))**
Pain_Control_Meth_PainRelieved*                      Long*
Count(IIf(Pain_Control_Meth_PainRelieved_1,True,Null))**
Pain_Control_Meth_PrescrGivenOnDischarge*            Long*
Count(IIf(Pain_Control_Meth_PrescrGivenOnDischarge_1,True,Null))**
Pain_Control_Meth_PainContrMethExplOnDischarge* Long*
Count(IIf(Pain_Control_Meth_PainContrMethExplOnDischarge_1,True,Null))**


;----------------------------------------------
;After Leaving the Surgery Center (PATINT2)
After_Leave_Surgery_Problems_Might_Have*             Long*
Count(IIf(After_Leave_Surgery_Problems_Might_Have_1,True,Null))**
After_Leave_Surgery_Who_Call*                        Long*
Count(IIf(After_Leave_Surgery_Who_Call_1,True,Null))**
After_Leave_Surgery_Meds_To_Use*                     Long*
Count(IIf(After_Leave_Surgery_Meds_To_Use_1,True,Null))**
After_Leave_Surgery_Had_Appointment*                 Long*
Count(IIf(After_Leave_Surgery_Had_Appointment_1,True,Null))**
After_Leave_Surgery_Had_All_Info*                    Long*
Count(IIf(After_Leave_Surgery_Had_All_Info_1,True,Null))**

;----------------------------------------------
;Postoperative Complications (PATINT2)
Postop_Pat_Int_Complic_AnyProblem*        Long*          Count(IIf(Postop_Pat_Int_Complic_Nausea_1 OR
Postop_Pat_Int_Complic_Vomiting_1 OR Postop_Pat_Int_Complic_Fever_1 OR Postop_Pat_Int_Complic_ProblemUrine_1
OR Postop_Pat_Int_Complic_Bleeding_1 OR Postop_Pat_Int_Complic_SignsOfInf_1,True,Null))**

Postop_Pat_Int_Complic_Nausea*                       Long*
Count(IIf(Postop_Pat_Int_Complic_Nausea_1,True,Null))**
Postop_Pat_Int_Complic_Vomiting*                     Long*
Count(IIf(Postop_Pat_Int_Complic_Vomiting_1,True,Null))**
Postop_Pat_Int_Complic_Fever*                        Long*
Count(IIf(Postop_Pat_Int_Complic_Fever_1,True,Null))**
Postop_Pat_Int_Complic_ProblemUrine*                 Long*
Count(IIf(Postop_Pat_Int_Complic_ProblemUrine_1,True,Null))**
Postop_Pat_Int_Complic_Bleeding*                     Long*
Count(IIf(Postop_Pat_Int_Complic_Bleeding_1,True,Null))**
Postop_Pat_Int_Complic_SignsOfInf*                   Long*
Count(IIf(Postop_Pat_Int_Complic_SignsOfInf_1,True,Null))**


;----------------------------------------------
;Pain Management at Home (PATINT2)
Pain_Manag_Home_PostopPainAtHome*                    Long*
Count(IIf(Pain_Manag_Home_PostopPainAtHome_1,True,Null))**
Pain_Manag_Home_PostopInstrContrPain*                Long*
Count(IIf(Pain_Manag_Home_PostopInstrContrPain_1,True,Null))**
Pain_Manag_Home_ComplWithInstr*                      Long*
Count(IIf(Pain_Manag_Home_ComplWithInstr_1,True,Null))**


;----------------------------------------------
;Pain Relief at Home for Patients Who Had Pain (PATINT2)
Pain_Relief_Home_Completely*          Long*        Count(IIf(Pain_Relief_Home_Completely_1,True,Null))**
Pain_Relief_Home_Greatly*             Long*        Count(IIf(Pain_Relief_Home_Greatly_1,True,Null))**
Pain_Relief_Home_Somewhat*            Long*        Count(IIf(Pain_Relief_Home_Somewhat_1,True,Null))**
Pain_Relief_Home_NotRelieved*         Long*        Count(IIf(Pain_Relief_Home_NotRelieved_1,True,Null))**


;----------------------------------------------
;Perceived Quality in Registr and Admission Process (PATINT2)
Perceived_Quality_Reg_And_Admis_Excellent*     Long*
Count(IIf(Perceived_Quality_Reg_And_Admis_Excellent_1,True,Null))**
Perceived_Quality_Reg_And_Admis_Good*          Long*
Count(IIf(Perceived_Quality_Reg_And_Admis_Good_1,True,Null))**
Perceived_Quality_Reg_And_Admis_Fair*          Long*
Count(IIf(Perceived_Quality_Reg_And_Admis_Fair_1,True,Null))**
Perceived_Quality_Reg_And_Admis_Poor*          Long*
Count(IIf(Perceived_Quality_Reg_And_Admis_Poor_1,True,Null))**
Perceived_Quality_Reg_And_Admis_N-A*           Long*        Count(IIf((Perceived_Quality_Reg_And_Admis_N-
A_1],True,Null))**


;----------------------------------------------
;Perceived Quality at Preadmission Testing (PATINT2)
Perceived_Quality_Preadmis_Excellent*     Long*
Count(IIf(Perceived_Quality_Preadmis_Excellent_1,True,Null))**
Perceived_Quality_Preadmis_Good*          Long*
Count(IIf(Perceived_Quality_Preadmis_Good_1,True,Null))**
Perceived_Quality_Preadmis_Fair*          Long*
Count(IIf(Perceived_Quality_Preadmis_Fair_1,True,Null))**
Perceived_Quality_Preadmis_Poor*          Long*
Count(IIf(Perceived_Quality_Preadmis_Poor_1,True,Null))**
Perceived_Quality_Preadmis_N-A*           Long*        Count(IIf((Perceived_Quality_Preadmis_N-
A_1],True,Null))**


;----------------------------------------------
;Perceived Quality in Recovery stage in the Center (PATINT2)
Perceived_Quality_Rec_Stage_Excellent*    Long*
Count(IIf(Perceived_Quality_Rec_Stage_Excellent_1,True,Null))**
Perceived_Quality_Rec_Stage_Good*         Long*
Count(IIf(Perceived_Quality_Rec_Stage_Good_1,True,Null))**
```

```
Perceived_Quality_Re      ge_Fair*              Long*
Count(IIf(Perceived_      ty_Rec_Stage_Fair_1,True,Null))**
Perceived_Quality_Rec_Stage_Poor*              Long*
Count(IIf(Perceived_Quality_Rec_Stage_Poor_1,True,Null))**
Perceived_Quality_Rec_Stage_N-A*               Long*         Count(IIf([Perceived_Quality_Rec_Stage_N-
A_1],True,Null))**

;-----------------------------------------------------------
;Age distribution (MEDREC)
Age_Distrib_Avg*              Single*         Avg(IIf(AGE>0 AND AGE<120,AGE,Null))*      Age_Distrib_Tot*
Age_Distrib_0-14*             Long*           Count(IIf([Age_Distrib_0-14_1],True,Null))**
Age_Distrib_15-24*            Long*           Count(IIf([Age_Distrib_15-24_1],True,Null))**
Age_Distrib_25-34*            Long*           Count(IIf([Age_Distrib_25-34_1],True,Null))**
Age_Distrib_35-44*            Long*           Count(IIf([Age_Distrib_35-44_1],True,Null))**
Age_Distrib_45-54*            Long*           Count(IIf([Age_Distrib_45-54_1],True,Null))**
Age_Distrib_55-64*            Long*           Count(IIf([Age_Distrib_55-64_1],True,Null))**
Age_Distrib_65-74*            Long*           Count(IIf([Age_Distrib_65-74_1],True,Null))**
Age_Distrib_75-84*            Long*           Count(IIf([Age_Distrib_75-84_1],True,Null))**
Age_Distrib_85+*             Long*           Count(IIf([Age_Distrib_85+_1],True,Null))**
Age_Distrib_Tot*             Long*           Count(IIf([Age_Distrib_Tot_1],True,Null))**

;-----------------------------------------------------------
;Recovery Time Distrubution (MEDREC)
Rectime_Avg*                 Single*         Avg(RECTIME)*                         RECTIME_TOT*
RECTIME-0-30*                Long*           Count(IIf([RECTIME-0-30_1],True,Null))**
RECTIME-30-60*               Long*           Count(IIf([RECTIME-30-60_1],True,Null))**
RECTIME-60-90*               Long*           Count(IIf([RECTIME-60-90_1],True,Null))**
RECTIME-90-120*              Long*           Count(IIf([RECTIME-90-120_1],True,Null))**
RECTIME-120-150*             Long*           Count(IIf([RECTIME-120-150_1],True,Null))**
RECTIME-150-180*             Long*           Count(IIf([RECTIME-150-180_1],True,Null))**
RECTIME-180-210*             Long*           Count(IIf([RECTIME-180-210_1],True,Null))**
RECTIME-210-240*             Long*           Count(IIf([RECTIME-210-240_1],True,Null))**
RECTIME-240+*                Long*           Count(IIf([RECTIME-240+_1],True,Null))**
RECTIME_TOT*                 Long*           Count(IIf([RECTIME_TOT_1],True,Null))**

;-----------------------------------------------------------
;Surgery Time Distribution (MEDREC)
Surgtime_Avg*                Single*         Avg(SURGTIME)*                        SURGTIME_TOT*
SURGTIME-0-30*               Long*           Count(IIf([SURGTIME-0-30_1],True,Null))**
SURGTIME-30-60*              Long*           Count(IIf([SURGTIME-30-60_1],True,Null))**
SURGTIME-60-90*              Long*           Count(IIf([SURGTIME-60-90_1],True,Null))**
SURGTIME-90-120*             Long*           Count(IIf([SURGTIME-90-120_1],True,Null))**
SURGTIME-120-150*            Long*           Count(IIf([SURGTIME-120-150_1],True,Null))**
SURGTIME-150-180*            Long*           Count(IIf([SURGTIME-150-180_1],True,Null))**
SURGTIME-180-210*            Long*           Count(IIf([SURGTIME-180-210_1],True,Null))**
SURGTIME-210-240*            Long*           Count(IIf([SURGTIME-210-240_1],True,Null))**
SURGTIME-240+*               Long*           Count(IIf([SURGTIME-240+_1],True,Null))**
SURGTIME_TOT*                Long*           Count(IIf([SURGTIME_TOT_1],True,Null))**

;-----------------------------------------------------------
;Miscellaneous (PATINT2)
IntTime_Avg*                 Single*         Avg(IIf(INTTIME>=1 AND INTTIME<=20,INTTIME,Null))*       TotPI*
```

```
;Format:
;
;---Group's Name*Group's Username* Group's UserCode*Allow separate members to
access their reports (Yes|No)
;center1
;center2


---ASC Group*pinewood*zaa*no
aba
abh
acd
acc
abi
abj
abg
abk
```

Current version of new-soix.ini *file*

```
;This file includes paths to Program folder, INI folder and Log folder.
;Edit it and copy to %windir% directory
;Caution: Do not put "\" at the end of folder names

;----------Shared parameters
INIPath                        =c:\SOIX\Soix_Report_System\INI
LogPath                        =c:\SOIX\Soix_Report_System\Log

OMS2ArchiveDirectory           =c:\SOIX\Soix_Report_System\DATA\OMS2_Archive
OMS2BackupDirectory            =c:\SOIX\Soix_Report_System\DATA\OMS2_Backup

MDBFile                        =c:\SOIX\Soix_Report_System\DATA\SOIX.MDB
LSTPath                        =c:\SOIX\Soix_Report_System\lst
TemplateDirectory              =c:\SOIX\Soix_Report_System\TEMPLATE
UploadDirectory                =C:\SOIX\WebSites\SOIX\upload
InternetDirectory              =C:\SOIX\WebSites\SOIX\Centers
NewReportsInternetDirectory    =C:\SOIX\WebSites\SOIX\NEW

;----------for paper reports
SavePathForPaperReport         =c:\SOIX\WebSites\SOIX\Paper_Reports
;Target = Web | Folder
Target                         =Folder


;----------New sites preparation
NTSecDirectory                 =c:\Admin_Stuff\NTSec
ApacheUsersFile                =C:\SOIX\WebSites\soix_users
ApacheGroupsFile               =C:\SOIX\WebSites\soix_groups
NewCenterTemplateFolder
=c:\SOIX\Soix_Report_System\Template\NewCenterTemplateFolder
PrepareUploadStuff             =Yes
PrepareDownloadStuff           =Yes
PrepareHTMLFiles               =Yes
```

EXHIBIT B

UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
60/252,129	11/21/2000		75	58367.000002			

CONFIRMATION NO. 8842

21967
HUNTON AND WILLIAMS
1900 K STREET N W
WASHINGTON, DC 20006

DOCKETED   FILING RECEIPT

OC000000005733952

Date Mailed: 06/08/2001

Receipt is acknowledged of this provisional Patent Application. It will not be examined for patentability and will become abandoned not later than twelve months after its filing date. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

Applicant(s)

Vladislav Olchanski, Richmond, VA;
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Stephen E. Zimberg, Plantation, FL;
Louis F. Rossiter, Richmond, VA;
Vadim Polyakov, Richmond, VA;
Jennifer S. Green, Richmond, VA;

If Required, Foreign Filing License Granted 02/04/2001
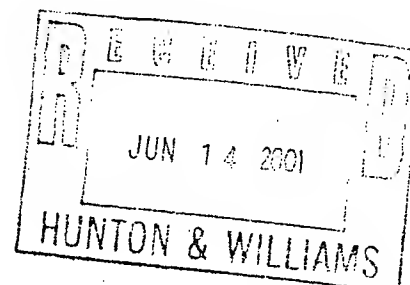
Projected Publication Date: N/A

Non-Publication Request: No

Early Publication Request: No

** SMALL ENTITY **

Title

Medical benchmarking technique

RECEIVED
JUN 1 4 2001
HUNTON & WILLIAMS

Data entry by : DURHAM, DESHAWN   **Team : OIPE**   **Date: 06/08/2001**

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Title 37, Code of Federal Regulations, 5.11 & 5.15

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EXHIBIT C

UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/996,475	11/20/2001	2152	564	58367.000003	23	25	5

CONFIRMATION NO. 2706

UPDATED FILING RECEIPT

OC000000007696775

Thomas E. Anderson, Esq.
Hunton & Williams
1900 K Street, N.W.
Washington, DC 20006-1109

Date Mailed: 03/25/2002

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

Applicant(s)

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Stephen E. Zimberg, Weston, FL;
Louis F. Rossiter, Richmond, VA;
Vadim Polyakov, Richmond, VA;
Jennifer S. Green, Lynchburg, VA;

Domestic Priority data as claimed by applicant

THIS APPLN CLAIMS BENEFIT OF 60/252,129 11/21/2000

Foreign Applications
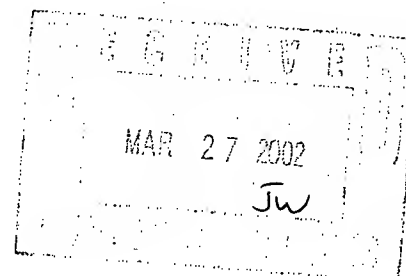
If Required, Foreign Filing License Granted 01/03/2002

Projected Publication Date: 06/27/2002

Non-Publication Request: No

Early Publication Request: No

** SMALL ENTITY **

REVIEWED

MAR 27 2002
JW

Title

Performance outcomes benchmarking

Preliminary Class
709

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Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15

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